# California Mental Health and Substance Use Needs Assessment

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|---|---|
| ACA | Affordable Care Act |
| ACT | Assertive Community Treatment |
| ADL | Activities of Daily Living |
| ADP | California Department of Alcohol and Drug Programs |
| AI/AN | American Indian/Alaskan Native |
| AOD | Alcohol and other drugs |
| AQIC | Accelerating Quality Improvement through Collaboration |
| ARRA | American Recovery and Reinvestment Act of 2009 |
| ASTMCCR | American Society for Testing and Materials Continuity of Care Record |
| ACSW | Associate Clinical Social Worker |
| STC | Special Terms and Conditions |
| BBS | California Board of Behavioral Sciences |
| BCCQ | Building Clinic Capacity for Quality |
| BH | Behavioral Health |
| BHSNA | Behavioral Health Services Needs Assessment |
| BLS | Bureau of Labor Statistics |
| BMI | Body Mass Index |
| BTOP | Broadband Opportunities & Training Program |
| CABHSNA | California Behavioral Health Services Needs Assessment |
| CADAAC | California Association of Alcoholism and Drug Abuse Counselors |
| CADPAAC | County Alcohol and Drug Program Administrators' Association of California |
| CAeHC | California eHealth Collaborative |
| CAEQRO | California External Quality Review Organization |
| CalOHII | California's Office of Health Information Integrity |
| CalOMS | California Outcomes Measurements System |
| CalPSAB | California Privacy and Security Advisory Board |
| CalREDIE | Reportable Disease Information Exchange |
| CalRHIO | California Regional Health Information Organization |
| CCD | Continuity of Care Document |
| CCDP | California Clinical Data Project |
| CCHRI | California Cooperative Healthcare Reporting Initiative |
| CDPH | California Department of Public Health |
| CENIC | Corporation for Education Network Initiatives in California |
| CFCO | Community First Choice Option |
| CFT | Child and Family Team |
| CHA | California Hospital Association |
| CHC | Community Health Center |
| CHCF | California Health Care Foundation |
| CHFFA | California Health Facility Financing Authority |
| CHILI | California Health Information Law Identification |
| CHIP | Children's Health Insurance Program |
| CHIS | California Health Interview Survey |
| CHWA | California Health Workforce Alliance |

| List of Terms | |
|---|---|
| CiMH | California Institute for Mental Health |
| CIN | California Improvement Network |
| CMI | Web-based Confidential Morbidity Reporting |
| CMS | Centers for Medicare and Medicaid Services |
| CNEA | California Networks for Electronic Health Record Adoption |
| CNS | Clinical Nurse Specialists |
| COD | Co-occurring Disorder |
| COSSR | Continuum of Services System Re-engineering |
| CPOE | Computerized provider order entry |
| CQC | California Quality Collaborative |
| CSRHA | California State Rural Health Association |
| CTEC | California Telemedicine and eHealth Center |
| CTN | California Telehealth Network |
| DATAR | Drug and Alcohol Treatment Access Report |
| DCA | Department of Consumer Affairs |
| DHCS | California Department of Health Care Services |
| DIMS | Document image management system |
| DMC | Drug Medi-Cal |
| DMH | California Department of Mental Health |
| DURSA | Data Use and Reciprocal Support Agreement |
| ED | Emergency Department |
| EDD | California Employment Development Department |
| EHR | Electronic Health Records |
| ELINCS | EHR-Lab Interoperability and Connectivity Specification |
| ELR | Electronic Laboratory Reporting project |
| EPSDT | Early Periodic Screening, Diagnosis, and Treatment |
| FCC | Federal Communications Commission |
| FFP | Federal Financial Participation |
| FMAP | Federal Medical Assistance Percentages |
| FQHC | Federally Qualified Health Center |
| FTE | Full time equivalent |
| HCBS | Home and Community Based Services |
| HDE | Health Data Exchange |
| HHS | U.S. Department of Health and Human Services |
| HIE | Health Information Exchange |
| HIPPA | Insurance Portability and Accountability Act |
| HISPC | Health Information Security and Privacy Collaboration |
| HIT | Health Information Technology |
| HITECH | Health Information Technology for Economic and Clinical Health |
| HRSA | Health Resources and Services Administration |
| HSRI | Human Services Research Institute |
| IADLs | Instrumental Activities of Daily Living |
| ICC | Intensive Care Coordination |

| List of Terms | |
|---|---|
| ICM | Intensive Case Management |
| IHA | Integrated Healthcare Association |
| IHBS | Intensive Home-Based Services |
| IISI | Integrated Information Systems Infrastructure |
| IMD | Institution for Mental Disease |
| IT | Information Technology |
| KP | Kaiser Permanente |
| LAO | Legislative Analyst's Office |
| LBNH | Long Beach Network for Health |
| LCSW | Licensing Clinical Social Worker |
| LEP | Licensed Educational Psychologist |
| LGBTQ | Lesbian, gay, bisexual, transgender, and questioning |
| LIHP | Low Income Health Program |
| LPCC | Professional Clinical Counselor |
| M/SU | Mental and/or Substance-use |
| MFT | Marriage and Family Therapist |
| MH | Mental Health |
| MHP | Mental Health Plan |
| MHPSA | Mental Health Professional Shortage Area |
| MHSA | Mental Health Services Act |
| MITA | Medicaid Information Technology Architecture |
| NHIN | Nationwide Health Information Network |
| NIST | National Institute of Standards and Technology |
| NQF | National Quality Forum |
| ONC | Office of the National Coordinator for Health Information Technology |
| ONCHIT | Office of the National Coordinator for Health |
| OSHPD | Office of Statewide Health Planning and Development |
| PBM | Pharmacy Benefit Managers |
| PCCI | Professional Clinical Counselor Intern |
| PCP | Primary Care Physician |
| PHI | Protected Health Information |
| PHR | Personal Health Records |
| PPACA | Patient Protection and Affordable Care Act |
| RFP | Request for Proposals |
| RHIO | Regional Health Information Organization |
| ROI | Return-on-Investment |
| ROI | Release of Information |
| SAMHSA | Substance Abuse and Mental Health Services Administration |
| SMH | Medi-Cal Specialty Mental Health |
| SMI | Serious mental illness |
| SPA | State Plan Amendment |
| SPD | Seniors and Persons with Disabilities |
| SSI | Supplemental Security Income |

| List of Terms | |
|---|---|
| SUD | Substance use disorders |
| TAC | Technical Assistance Collaborative |
| TBS | Therapeutic Behavioral Services |
| TRC | TeleHealth Resource Center |
| WET | Workforce, Education, and Training |

# I. EXECUTIVE SUMMARY

The California Department of Health Care Services (DHCS) contracted with the Technical Assistance Collaborative (TAC) and Human Services Research Institute (HSRI) (referenced throughout the report as TAC/HSRI), to conduct a Mental Health and Substance Use Needs Assessment (referenced throughout the report as the Needs Assessment) and to develop a Mental Health and Substance Use Service System Plan. The Needs Assessment was carried out to satisfy the Special Terms and Conditions required by the Centers for Medicare and Medicaid Services (CMS) as part of California's Section 1115 Bridge to Reform waiver approval.

The primary purpose of the Needs Assessment was to review the needs and service utilization of current Medicaid recipients and identify opportunities to ready Medi-Cal, California's Medicaid program, for the expansion of enrollees and the increased demand for services resulting from health reform. While the report is focused primarily on the Medi-Cal mental health and substance use systems, our review also included analysis of data from the State's Department of Alcohol and Drug Programs' California Outcomes Measurement System Treatment (CalOMS Tx) database, and the Department of Mental Health's Client and Services Information (CSI) data set. This was done to provide a full picture of the behavioral health system in California.

In addition to analysis of the three major datasets listed above; site visits, focus groups and interviews with over 140 key informants were an important element of the information collection process. TAC/HSRI also collected and reviewed over 100 documents related to California's mental health and substance use service systems. These activities resulted in a comprehensive report focusing on the following areas:

- Estimation of the prevalence of mental illness and substance use disorders among the population of California; (Chapter III)
- Analysis of service utilization, expenditures, and service penetration rates for the Medi-Cal, Department of Alcohol and Drug Programs, and Department of Mental Health programs; (Chapters IV, V, VI)
- Projection of numbers for and characteristics of the 2014 Medi-Cal expansion population; (Chapter VII)
- Identification of issues related to certain special populations enrolled in the Medi-Cal program; (Chapter VIII)

- Analysis of provider capacity and mental health and substance use workforce issues; (Chapter IX)
- Analysis of the state of health integration in California; (Chapter X) and
- Review of issues related to health information technology for mental health and substance use providers; (Chapter XI)

The following is an overview of the focus and major findings from the report.

## A. Prevalence of Mental Health and Substance Use Service Needs in California

The chapter on prevalence of mental illness and substance use disorders addresses several important questions:

1. What is the estimated prevalence of mental illness among the population of California at both the state and county levels?
    a. What is the prevalence of serious emotional disturbance among youth?
    b. What is the prevalence of serious mental illness among adults?
2. What is the estimated prevalence of substance use among the population of California at both the state and county levels?
3. How does the prevalence of mental illness and substance use disorders among Californians compare to that of other states?

Results of the analyses show statewide estimated prevalence as follows:

| Category | Statewide Prevalence Estimates |
|---|---|
| **Youth (0 – 17) with serious emotional disturbance** | 7.56% |
| **Adults with serious mental illness** | 4.28% |
| **Adults: broad definition of mental health need** | 15.85% |
| **Youth (0 – 17) with substance use needs** | 2.7% |
| **Adults ( 18+) with substance use needs** | 8.76% |

Prevalence of mental illness and substance use disorders vary by gender, age, race, ethnicity, and county of residence. Results of these analyses included:

- Hispanic youth were found to have a slightly higher estimated prevalence rate of 8.03% as compared with 6.85% for white youth (non-Hispanic). African American and Native American youth also have a slightly higher prevalence rate of 7.99% and 7.91%, respectively.

- Prevalence of serious emotional disturbance varies with income level with higher levels among youth from the lower income categories.
- Prevalence among adults with severe mental illness increases with age between the ages of 18-20 and 35-44, ranging from 1.98% of the population for individuals ages 18-20 to 6.23% of the population among individuals ages 35-44.
- Rates are higher among females (4.94% for females vs. 3.62% for males), Native Americans (7.02%), and individuals who are separated, widowed or divorced (6.93%). Prevalence tends to decrease as education level increases and as income increases.

State prevalence rates for youth with SED range from a low of 6.91% in New Hampshire to a high of 7.93% in Mississippi. California, with a prevalence rate of 7.44% for children with SED ages 0-17, falls approximately in the middle of the distribution with a rank of 28. State prevalence rates for adults with SMI range from a low of 3.26% in Hawaii to a high of 5.79% in Mississippi. Unlike with the children's estimate, California (4.28%) falls close to the lower end of the distribution for adults with SMI, coming in with the ninth lowest rate in the country. Similar state by state comparison data is not available for the substance use population.

The prevalence estimates of both mental health and substance use disorders at the county level provide officials with useful information about the potential service demand in their locality to assist them in their own planning efforts. These data can also help clarify particular subsets of their populations where need is greatest and can be used to help determine how best to tailor strategies and interventions to meet the needs of individuals with mental health and substance use disorders.

## B. Analysis of Medi-Cal Data for Mental Health and Substance Use Services

Chapter IV includes a comprehensive analysis of Medi-Cal mental health and substance use claims and encounter data for the years 2007--2009. These data were analyzed to answer the following questions:

1. What are the enrollment and penetration rates in behavioral health services for Medi-Cal participants?
2. What behavioral health services do Medi-Cal participants access and utilize?
3. What are the overall expenditures for behavioral health services in Medi-Cal?
4. Who are the high utilizers of Medi-Cal behavioral health services and what are the associated expenditures?

5. To what degree do Medi-Cal beneficiaries access behavioral health interventions in hospital emergency departments?
6. What is the current performance of the system as measured by HEDIS indicators (time from hospital discharge to follow-up outpatient appointment, and hospital and emergency department readmission rates)?
7. In what ways do the above variables vary by age, ethnicity, eligibility category, diagnostic category and participation in specialty versus non-specialty plan services?

Major findings of these analyses included:

## 1. Penetration rates

TAC/HSRI used the prevalence estimates described in Chapter III as the basis for calculating penetration rates for Medi-Cal and also for the DADP and DMH datasets. The prevalence estimates are based on the total population of individuals needing mental health or substance use services, not just individuals who are or will be eligible for Medi-Cal. Also, the estimates do not reflect the number of people will ask or present for services, but rather estimate the number of people in each category who theoretically need services. Finally, there are some people in the prevalence estimates already receiving mental health or substance use services through commercial insurance, private pay, or safety net service provision under county DADP and DMH programs. Thus, the prevalence estimates do not reflect un-met need or demand for services in an absolute sense. Nonetheless, use of the prevalence estimates support an accurate assessment of the degree to which the Medi-Cal, DADP and DMH systems are meeting the need for mental health and substance use services in California.

For example, the target populations of Medi-Cal specialty mental health programs under the 1915(b) waiver are adults with serious mental illness and youth with serious emotional disturbance. Thus, the most relevant calculation of penetration rates is to compare the number of individuals within these population groups actually served versus the estimated number of these types of individuals in California. At the same time, the broader definition of mental health need is used to calculate penetration rates for people accessing Medi-Cal services through fee for service or physical health plans, since these individuals would be referred to the specialty mental health plans if they met the clinical definition of the narrow prevalence estimates.

1. Penetration rates[1] for SMI and SED in the Medi-Cal program were 22% and 14% respectively.[2]
2. Penetration rates for substance use were 3% for the Medi-Cal program.
3. Penetration rates for adult other behavior health in the Medi-Cal program is 2%.
4. Asian and Hispanic populations have the lowest penetration rates.

### 2. Utilization, expenditures and performance - DHCS

1. Total dollars spent on behavioral health care services grew from just under $3.2 billion to a little over $3.8 billion during the years 2007 to 2009.
2. Substance use service expenditures averaged 11% of total behavioral health expenditures across the three years.
3. The number of individuals receiving Medi-Cal funded services grew over the three year period – 3% from 07 to 08 and 4% from 08 to 09. The number of unique users of the system increased from 523,072 to 564,480 in 2009.
4. Expenditures increased 17% over the three year period, but overall average costs per service participant increased by just over 10%. This occurred despite a positive shift of resources away from inpatient services and towards outpatient services between 2007 and 2009.
5. The largest eligibility category is SSI/SSP under age 65 at 42% in 2009.
6. The data showed a large number of people receiving a small number of service encounters (three or fewer).
7. High cost users of services represent a large percentage of total expenditures – the top 20% used 82% of total expenditures in 2009 and the top 5% used 55% of total expenditures.
8. The data indicates improving performance – e.g. increasing proportion of participants receiving an outpatient follow-up visit after an inpatient stay.

## C. Analysis of the DADP California Outcomes Measurement System Treatment (CalOMS Tx) Data

The questions addressed in Chapter V include:

1. What are the characteristics of people accessing DADP services in California?
2. Are there differences in substance use service utilization based on these characteristics?

[1] Defined as number who receive a service within a demographic category divided by the number that need the service in the state according to prevalence estimates.
[2] Note that the penetration rate is based on the prevalence of SMI, SED, and SUD among the population of California and is not limited to current Medi-Cal beneficiaries.

3. What patterns can be described relative to single episodes of care versus multiple (continuous and recurring) episodes of care in substance use services?
4. What are the average lengths of stay in services for different service modalities?
5. What proportion of service participants complete treatment?
6. What are the average wait times for accessing substance use services?
7. What patterns can be discerned related to resource utilization within the ADP system?
8. How do California's DADP service access and utilization patterns compare with national averages?

TAC/HSRI received CalOMS-Tx data for the time period 2007 through 2010. Data was analyzed according to: (a) time (fiscal year); (b) demographic characteristics (gender, age, race and ethnicity, etc.); (c) treatment service type or modality (outpatient, detox, long-term residential, etc.); and (d) proxy best practice indicators (days waited to enter treatment, length of stay, discharge status, and recurrent and continuous users of the treatment system). The project team examined these dimensions in relation to the following types of variables: Medi-Cal beneficiary status, referral source (individual, criminal justice, etc.); substance use conditions (primary substance use, poly drug use, needle use); other health-related services conditions (physical health, mental health, etc.); and social conditions (living with someone who uses substances, serious conflict with family members).

The following are some key findings from the DADP data analysis:

- The overall penetration rate within DADP is 6%.[3]
- The DADP system currently accomplishes over 180,000 service admissions per year, and the non-Medi-Cal budget for county-level substance use services is over $550 million.
- Access and utilization of DADP services is similar to national patterns.
- Compared to national estimates the system is producing better than average treatment completion rates for detox and residential services and slightly lower treatment completion rates for outpatient and narcotic treatment services.
- Unlike national trends DADP short-term residential (1%) is much lower than long-term residential (16%).
- Positive measures include short time to treatment (e.g. 72% of all admissions within one day and 89% within a week) and a good balance of outpatient, residential and detoxification services relative to national norms.

[3] As previously described, this is calculated by dividing the current DADP service population (unique individuals served within a year) by the estimated prevalence for that group.

## D. ANALYSIS OF THE DMH'S CLIENT AND SERVICES INFORMATION (CSI) DATA

CSI data supplied by DMH permitted analysis of a number of key questions related to non Medi-Cal funded mental health services in California. Questions addressed in Chapter VI include:

1. What are the characteristics of people accessing DMH services in California?
2. What are the types and amounts of services delivered?
3. To what extent are evidence-based practices and best practice service strategies being utilized across the state?
4. What is the functional level of people served by the system?
5. Are there differences in the type and amount of services received by functional status level?
6. Are there differences in how people transition into and out of the system by functional level and service utilized?

The CSI dataset includes some variables not included in the Medi-Cal claims data, such as level of functioning (GAF score) and use of evidence base practice service models. This allowed analysis of the relationship between levels of functioning and the receipt of certain service modalities. However, this dataset does not include specific claims-based information on service encounters or costs. Nor does it identify which providers delivered services to DMH participants. It should be noted that there is likely to be considerable cross-over between participants in the CSI data and the Medi-Cal data. Given limitations in identifying information, it was not possible to compare unique individuals between the datasets.

Key results of the CSI data analysis include:

1. DMH penetration rates were 35% for SMI and 32% for SED.[4]
2. There is low utilization of evidence-based practices (approx. 1-2% across the years).
3. EBPs seemed to be on the rise until 2010. This is a valuable data set to keep tracking as most states are not maintaining data systems on EBPs and service strategies.
4. Adults who received an EBP seemed to be more likely to be retained and engaged by the system.
5. Lower functioning youths who received an EBP were more likely to improve and higher functioning youth were more likely to exit the system (potentially an indicator they no longer needed services).

[4] As with Medi-Cal and DADP, these penetration rates are calculated by dividing the total unduplicated number of individuals in each group served by the estimated prevalence for these groups. As noted previously, some people do not request services, and some people receive services from other systems with other payment sources. Thus, the difference between the penetration rates and 100% is not an indicator of unmet need.

6. Functional level data appears to show DMH is effective at persons maintaining their current level of functioning.

## E. MEDI-CAL EXPANSION POPULATION

The specific questions addressed in the expansion population chapter include:

1. What is the estimated size of the overall Medi-Cal expansion population that will begin enrollment in 2014?
2. What is the predicted composition of the Medi-Cal expansion population?
3. What is the health/behavioral health status of the expansion population?
4. What will be the county-by-county distribution of the expansion population?
5. What proportion of the overall expansion population can be expected to want and need mental health and substance use treatment services?
6. Will there be differential effects in behavioral health needs across the counties?

TAC/HSRI used a combination of national and California based literature and data analysis to prepare estimates of the expansion population. Key findings include:

### 1. Expansion population size and demographics

1. The total Medi-Cal expansion population beyond 2014 is estimated to be in the range of 1.5 to 2 million additional enrollees.
2. The following demographic characteristics are projected: 26% age 18-26 years (this could be significant given this coincides with typical onset of behavioral health issues and seeking of treatment); 40% age 27-44 years; 18% age 45-54 years.
3. 70% of the overall expansion population is expected to be non-Caucasian, with 23% non-English speaking.

### 2. Health status and behavioral health need

1. Between 279,000 and 373,200 individuals within the expansion population are estimated to need (but not necessarily ask for) mental health services.
2. Between 113,250 and 151,000 of the overall expansion population are expected to need substance use services.[5]

[5] There is likely to be duplication between the substance use and mental health expansion populations, so the estimates cannot be added together.

3. Individuals with the most serious health and behavioral health disabilities are likely to have already enrolled in Medicaid and are not likely to be heavily represented in the expansion population.
4. The rates of mental health and substance use disorder among the total estimated mental health and substance use expansion populations are not likely to be substantially different from expected prevalence in the general population, but early enrollment of people with higher mental health and substance use needs is expected based on the experiences of other states.
5. Ten counties (Los Angeles, San Bernardino, Orange, San Diego, Riverside, Sacramento, Fresno, Santa Clara, Alameda, Kern) are expected to account for 50% of the increase in Medi-Cal enrollments after 2014.

### 3. Preparing for adverse selection

1. Many childless adults have been categorically ineligible for Medicaid. Medicaid expansion presents a first opportunity for these individuals to obtain health coverage.
2. Public health and behavioral health systems have been using extremely limited non-Medicaid public resources to serve people currently ineligible for Medicaid. When these individuals become eligible, there will be a powerful incentive for public systems and providers to assure these individuals are enrolled in Medicaid.
3. Although it is likely the expansion population will be enrolled in managed care plans, there is likely to be a need for facilitated access to both Drug Medi-Cal and the specialty mental health plans for some portion of the expansion population. Not all members of the expansion population will have mental health and substance use service needs that can be met solely through the benchmark plan benefit design.
4. Due to predicted higher co-morbidity of physical health and mental health and substance use issues for the early enrollees in the expansion population, the degree of need for multi-system approaches and integrated care coordination models is likely to be higher among the expansion population than for the current non-disabled Medi-Cal population.

## F. MEDICAID STRATEGIES FOR SPECIAL POPULATIONS

The special populations discussed in Chapter VIII are:

- People experiencing homelessness;
- People with substance use disorders;
- Adults exiting the criminal justice system;

- Youth involved with the child welfare or juvenile justice systems; and
- Racial, ethnic, and cultural minorities.

Key questions of interest include:

1. What are the current barriers to Medicaid enrollment for these populations, and what opportunities are available for targeting outreach and enrollment strategies?
2. What mental health and substance use benefit design and service array are effective in addressing the special mental health and substance use needs of these populations and what gaps exist in the current benefit design?
3. What range and type of providers (including special skills and competencies) are required to address the unique needs of these populations?
4. What can penetration rate data tell us about how well the current Medi-Cal mental health and service system is performing related to access and quality for particular special populations?

TAC/HSRI accessed a variety of qualitative and quantitative information for the analysis of special population issues. These include:

5. Review of published reports related to best practices occurring nationwide and in California related to enrollment, outreach, services, provider qualification and network, and quality monitoring for these special populations.
6. Interviews with key informants about the needs and gaps related to services, enrollment mechanisms, providers, and other issues impacting the effectiveness of the system to adequately address the mental health and substance use needs.
7. Analysis of penetration rates, service utilization, and prevalence of mental health and substance use disorders for certain special populations.

Key findings of the analysis of special population issues include:

- California already has in place several provisions that support treatment access for special populations (e.g., 12 months continuous Medi-Cal enrollment for children; coverage of foster care involved children until age 21 (in place prior to new health reform requirements.)
- Asian and Hispanic people have the lowest overall mental health and substance use service participation rates within the Medi-Cal, DMH and DADP datasets. These population groups are also estimated to be highly represented in the currently uninsured Medi-Cal expansion population. Special outreach and engagement efforts directed at these population subgroups are

recommended within the system plan. It should be noted that all population groups, not just special populations, experience low participation rates, particularly in Medi-Cal.

- Given the vulnerability of special populations, continued efforts to monitor gaps, engage a diverse provider network, and include services in the benefit package that impacts these populations is critical.
- Many of the special populations discussed in this chapter, such as persons experiencing homelessness, persons with substance use disorders, and persons exiting the corrections systems will comprise a significant portion of the expansion population. Without specific attention to these needs of these populations in the design of outreach and enrollment strategies, services, provider qualifications and networks, as well as quality monitoring and improvement activities, these populations could continue to experience barriers to service access, poor treatment outcomes, and high utilization of costly services such as emergency departments and inpatient care.

## G. Provider Capacity and Workforce Analysis

Chapter IX highlights some of the critical workforce issues facing California, details provider and workforce capacity information and key trends, and discusses results of the various key informant interviews. Several key questions drove both the quantitative and qualitative aspects of this provider capacity and workforce analysis. These questions included:

1. Who are the enrolled providers of Drug Medi-Cal (DMC), Medi-Cal Specialty Mental Health (SMH), and other Medi-Cal reimbursable mental health and substance services; and what is their geographic distribution?
2. Given that Medi-Cal enrolled providers may also deliver services to persons covered by other insurers, an important question is: what is the functional capacity of the current Medi-Cal behavioral health provider system for Medi-Cal beneficiaries? What is the number of unique Medi-Cal participants served by Medi-Cal enrolled providers?
3. What is the inpatient capacity designated for acute psychiatric inpatient and/or substance use detoxification and treatment and what is the geographic distribution?
4. What are the types of providers and mental health and substance use workers that are in demand?
5. To what extent are persons with lived experience being utilized in the provision of mental health and substance use services?

6. What are the characteristics of the mental health and substance use workforce including racial/ethnic composition, and linguistic capacity?
7. What are the skills and competencies considered necessary to meet the needs of Medi-Cal beneficiaries?

Several quantitative and qualitative data sources were used for this analysis. These include:

- Published reports related to national and California specific workforce issues and trends;
- State and County-level reports about provider and workforce, including selected Workforce Education and Training (WET) plans and needs assessments and county specialty mental health plan External Quality Review Organization reports;
- Interviews with key informants about issues facing the mental health and substance use workforce and the perceived needs and gaps in the provider workforce;
- Data about human resource capacity and labor statistics both nationwide and in California;
- Data from licensing and certification boards for various behavioral health practitioners; and
- Medi-Cal claims and provider identification data.

In combination, these sources of information illuminate a number of key findings, as summarized below:

- California has invested significant effort in expanding and supporting the behavioral workforce.
- Determining provider capacity is incredibly challenging. Much of the data that is available to assess capacity are proxy measures (e.g. bed capacity), are only "moment-in-time" snapshots, and do not capture capacity dedicated solely to Medi-Cal beneficiaries (given that providers serve multiple payers).
- Analysis of inpatient psychiatric and detoxification beds suggests there is an inadequate supply as well as mal-distribution of these beds in the state.
- Specific issues include: (a) shortages of psychiatrists/nurse prescribers (b) rural access issues; (c) need to further leverage FQHC capacity; and (d) untapped workforce of consumers/persons with lived experience that could serve as Medi-Cal providers.
- There is a need to address SUD certification variation and alignment with best practice in SUD treatment; improve ability to treat co-occurring mental health and addiction issues; and challenges with readiness for broader implementation of EBP's.

- There is variability among the counties in the use and training of staff in state-of-the art and evidence-based and recovery-oriented treatments such as integrated treatment for co-occurring disorders, ACT, SBIRT, MST, or medication assisted therapies;
- There is a need for more culturally responsive and competent provider practices to engage underserved populations;
- There is a need for more collaboration and stronger partnerships between FQHCs and county mental health and substance use departments.

## H. HEALTH INTEGRATION

Chapter X on health integration focuses on the following issues:

1. What structural, financing, practice, and/or regulatory issues promote care integration or conversely make integration of care challenging?
2. What best practice models exist for integration of care across physical health, mental health and substance use and what lessons learned can be applied as California considers various options available under health reform to promote better integration of care?

The following activities were conducted as part of this health integration analysis:

- Published reports related to national and California specific health integration activities were reviewed and analyzed for key themes including selected county specialty mental health plan External Quality Review Organization reports.
- Interviews were conducted with key informants about the lessons learned from various health integration projects in California. Key informant interviews also focused on understanding the various structural, financial, and regulatory issues that impede or promote integration.

Key findings of the analysis of health integration strategies include:

- There are examples of exemplary practices occurring within several counties. Most Medi-Cal participants in California still do not have access to state of the art integrated treatment.
- As with other states, there is a need to turn pilots into scalable approaches.
- The unique configuration and diversity of county level physical and specialty health plans and related funding streams necessitates creative planning and problem-solving within each county as well as at the state level.

- There is a need to address a variety of different but interrelated integration strategies and for the mental health and substance use service populations. These include customized approaches for children and youth, and coordination and access strategies for non-behavioral health services such as housing, employment and education.
- Current consideration of implementing Health Homes for certain Medi-Cal populations may lead to effective multi-system physical health/behavioral health integration models.
- The state level reorganization of the Departments of Mental Health and Alcohol and Drug Programs, including integration of these agencies' Medi-Cal functions into DHCS, promises to increase the uniformity and integration of policy and financing across these programs.

## I. BEHAVIORAL HEALTH INFORMATION TECHNOLOGY

TAC/HSRI addressed the following questions in the chapter on Health Information Technology:

1. What is the current status of California's mental health and substance use health information technology and exchange infrastructure?
2. What has occurred in the development and use of health electronic health records and the interoperability of different systems, the use of telemedicine and e-prescribing to support care delivery?
3. What are the implications for the health care delivery system including integration of care and delivery of high quality and cost effective care; and implications specific to the mental health and substance use system including workforce, privacy/confidentiality laws, vulnerable populations, and support of recovery-oriented care?

The analyses of Health Information Technology included:

- Review of published reports related to best practices occurring nationwide and in California related to Health Information Technology, Health Information Exchange, electronic health records, and use of technology to support care delivery (i.e., tele-health)
- Interviews with key informants about the current status of implementation of HIT in the physical health field and the mental health and substance use field; as well as the implications of confidentiality rules and laws for mental health and substance use that impact implementation of HIT.

Key findings of this analysis include:

- California has several specific efforts to address HIT (e.g. ARRA, MHSA).
- There remains a dearth of fully integrated health/behavioral health systems and sites within which EHR and health information exchange would be most natural.
- A disparity exists between behavioral health providers and physical health providers in the use of and access to HIT. This gap will only grow wider given that ARRA funding is limited to physical health providers.
- The continued separation among the Medi-Cal physical health plans, specialty mental health plans, and Drug Medi-Cal at the state and county levels exacerbates the difficulties of forging effective health information exchange strategies and technologies.
- There are multiple statutory and regulatory barriers to exchanging personally identified health information among substance use, mental health and physical health providers.
- Proprietary health plans and systems may have disincentives or limitations in the amount they can exchange health information.
- Clinical information sharing remains difficult because health care organizations do not use data definitions and structures that can be easily cross-walked. This is true even when mental health and primary care services are located within the same organization and when both systems have electronic health records.
- EHRs are not sufficient by themselves to facilitate sharing and full use of critical information across providers and payers: a patient registry as a key building block to integration, and most local systems are not yet developing such integrated patient registries.
- The variation in vendor systems across California's counties and their health plans impedes cross-county operability and integration between primary care and behavioral health.
- There is a proliferation of local county-specific databases designed for programs such as Criminal Offenders with Mental Illness, Drug-Court, Computer Resource Allocation Inventories and others that are not compatible in many different and idiosyncratic ways.
- Each county has to engage in specific efforts to establish data sharing agreements and navigate different systems.
- In order to implement EHR systems, mental health and substance use service provider staff must be trained to function within an EHR environment and to adapt to HIT. This is a whole different dimension to workforce development and retention over and above training in best practices, cultural competence, etc.

It is recognized that neither the physical health system nor the behavioral health system will have sufficient resources to significantly increase HIT/EHR and health information exchange on the own over the next few years. However, some health integration and improvement opportunities under the ACA cannot be implemented without further progress with HIT/EHR, particularly in the mental health and substance use services realms. Improved use of technology and expanded exchange of health information must continue to be a priority for the field, even in the face of restricted resources.

## J. REPORT CONCLUSION

This report has described the California mental health and substance use service systems from a variety of perspectives. As noted in the introduction, the central focus of the report is Medi-Cal. However, Medi-Cal does not exist in a vacuum, and thus the report includes quantitative and qualitative information about behavioral health consumers, services, providers, workforce, integration strategies and information technology for the larger system. All of these factors affect the quality and performance of Medi-Cal mental health and substance use services going forward.

In the course of conducting this comprehensive review, TAC/HSRI identified a number of strengths and challenges inherent in the various public systems that now finance, oversee, and deliver services to people with mental health and substance use service needs. These are summarized in the conclusion chapter, and are accompanied by a number of global recommendations for the mental health and substance use services plan that will result from this analysis. Highlights of this discussion are presented below.

### 1. Strengths

In the course of collecting qualitative information and analyzing quantitative data, TAC/HSRI identified a number of key strengths in the current system. Major strengths in the system are summarized below.

#### *a) Implementation of the Bridge to Reform Waiver*

- Enrollment of seniors and people with disabilities (SPDs) into managed care is likely to increase participation of these individuals in behavioral health as well as physical health primary care and preventive interventions.
- The enrollment of uninsured single adults in the Low Income Health Plans (LIHP) will increase access to mental health (not substance use in most cases) services. And, as with the SPD managed care initiatives, enrollment in LIHP is expected to increase both the potential and the

incentives for LIHP counties to coordinate care across the physical health and specialty health plans.

- The Delivery System Reform Incentive Pool (DSRIP) initiative includes numerous opportunities for public hospitals to improve quality of care for individuals with mental health and substance use disorders.

### *b) The Potential for Health Home implementation*

Section 2703 of the ACA, Health Homes for Individuals with Chronic Conditions, holds great promise for improving care for individuals with mental health and substance use disorders. It offers the opportunity to overcome barriers to information sharing and care coordination between the physical health and specialty health plans. It also has the potential to generate substantially increased integration of care at the point of service for people with multiple disabilities. Health Homes provide both a framework and incentives for behavioral health providers to forge partnerships related to both integrated care delivery models and health information technology. As California considers which opportunities to pursue as part of national health reform, Health Homes offer the chance to reduce the fragmentation in care received by people with chronic mental health and substance use disorders.

### *c) Medi-Cal benefit design*

California has most of the service category and definition tools it needs for adult mental health in the specialty mental health plans. With the implementation of the *Katie A.* settlement, California will have many of the tools it needs for youth with serious emotional disturbance within the specialty mental health plan. And, although California's Drug-Medical program and covered services is limited and incomplete, it is on par with Medicaid coverage for substance use services in many other states.

The fact that California has relatively good covered services (benefit design) in the specialty plans does not mean that (a) it has all the covered services, best practice service definitions, etc. that are desirable; or (b) that these services are being widely or correctly implemented. For example, Drug Medi-Cal (DMC) includes Naltrexone, an evidence-based medication assisted therapy for substance use disorders, as a covered benefit. To date, this benefit is rarely if ever accessed by DMC providers on behalf of DMC participants.

### *d) Proposition 63: The Mental Health Services Act (MHSA)*

California has been able to add substantial resources to the mental health system for adults and youth through MHSA. MHSA funds have also supported beneficial planning and infrastructure development within county based mental health systems. Investments have been made in the implementation of evidence-based services, and in the development of partnerships to coordinate care at the point of service for consumers with complex, multi-system needs. MHSA funds now also constitute a portion of the certified public expenditures that comprise the match for Medicaid FFP for the specialty mental health program. This has expanded the utility of MHSA funds, but has also limited the flexibility with which the funds can be used.

In addition, MHSA funds have supported initiatives to improve and expand the mental health workforce, particularly with regard to addressing health access disparities based on cultural and linguistic barriers. Finally, MHSA funds have been used to foster improved health information technology (HIT) and the implementation of electronic health records (EHRs). These initiatives are limited at this point, but they could provide useful implementation experience to other counties and providers as they seek to implement HIT and EHR capacities.

### *e) Philanthropic and educational commitment*

California's Medi-Cal and related behavioral health systems have benefitted from long term and continuous support from both philanthropic organizations and educational institutions. Both the California Endowment and the California Health Foundation have invested substantial funds in research and demonstration projects of benefit to Medi-Cal and the public behavioral health system. The California Institute for Mental Health (CiMH) has spent many years fostering best practices within the public mental health system. For substance use services, the Integrated Substance Use Center at UCLA has provided similar expertise and technical assistance. Additionally, the Center for Health Policy research at UCLA has supported numerous initiatives.

### *f) Evidence-based practices*

California has demonstrated some progress in the implementation of evidence-based practices as defined by SAMHSA. It is notable that DMH's CSI database has the capability to track and report the numbers of individuals in that system receiving evidence based practices. Increasing participation in evidence-based services, particularly if these services maintain fidelity to their models, should assist to reduce inpatient and emergency department utilization in the specialty mental health plans over time.

## 2. Needs and gaps in the current system

As has been described throughout this report, there are a number of gaps and issues with regard to the system that need addressing. These include:

### *a) Disparate administration and financing of major components of the system*

Until recently there has been trifurcated administration of behavioral health administration, policy, financing and operations in California. This administrative separation (a) has exacerbated the inherent differences and boundaries between the physical health and specialty health plans; (b) has diffused accountability for the overall performance of these various systems and funding streams; and (c) has perhaps created unintended incentives for cost or care-shifting between the various plans and fund sources.

The administrative separation of these functions and program areas is further complicated by the devolution of the programs to the county level. There are 58 counties, each of which administers or contracts for physical health plans, mental health specialty plans, and with the exception of 18 non-participating counties, the DMC program. The new phase of realignment, which places most sources of mental health and substance use funding at the county level, could potentially increase the already wide discretion at the county level with regard to managing these programs.

The consolidation of mental health and substance use service Medi-Cal functions and other community service funding streams within DHCS presents an opportunity to integrate management and policy across these systems. However, at the county and provider level the DADP, DMH and DHCS systems are still quite separate, and a variety of strategies will have to be used to forge greater coordination and integration within those local systems.

### *b) Gaps in benefit design and coverage*

Consistent with the administrative separation of substance use, mental health and physical health services, differences in benefit design and coverage have also emerged. Perhaps the biggest gap is between the physical health benefit (both fee for service and health plans) and the two types of specialty plans. People have to meet high diagnostic, clinical and functional guidelines to access services from either DMC or the specialty mental health plans. At the same time, there is sparse coverage for behavioral health services in the fee for services program and among most of the physical health plans. This leaves a wide gap in

coverage for people with serious needs for substance use or mental health services who do not meet the clinical eligibility criteria for the specialty health plans.

Another major gap in coverage is the lack of specific benefits for people with co-occurring mental illness and substance use disorder. Neither DMC nor the specialty mental health plans have specific benefits for integrated dual diagnosis treatment. Nor could we identify any formal mechanisms or financial provisions for effectuating referrals and coordinated treatment between the two types of specialty plans. The overall Medi-Cal claims data show very few participants receiving both mental health and substance use service encounters. Plus, only 10% of providers in the Medi-Cal claims data deliver both substance use and mental health service encounters.

### *c) Care is not integrated or coordinated*

As noted above, there are no mechanisms for measuring performance or providing incentives to physical health and specialty plans for integrating and coordinating care. Nor are there specific reimbursement mechanisms within Medi-Cal that would support team service delivery, joint plan of care development, psychiatric consultation to primary care, or many other mechanisms of care coordination and integration. If DHCS implements a Health Home program it is likely much of this issue will be addressed. Nonetheless, there are many Medi-Cal participants, including potentially the expansion population, who are not eligible to participate in Health Homes. In addition, there are additional barriers to information sharing and accessing HIT/EHR technology that will not automatically be corrected in a Health Home initiative.

Cross system and cross-plan integration and coordination is an area that could be improved through performance measurement and financial incentives as well as through traditional collaborative and co-location approaches. Enhanced performance measurement and incentives could be incorporated into a uniform purchasing plan that would integrate DHCS's prudent purchasing objectives across the multiple plans and jurisdictions.

### *d) There are cultural/linguistic and regional variations in access to services*

California is similar to many other states in that: (a) it does a good job of tracking and reporting access to Medi-Cal services for each ethnic group; (b) the proportion of people within each ethnic group service by Medi-Cal, at least in the specialty plans, is not very far off from the proportion of each group in the general population; and (c) despite these efforts and successes, there are is still disproportionate access to behavioral health services on the part of certain ethnic populations. When compared to overall estimated

mental health and substance use service needs (prevalence), White and African American groups are served in higher proportions (17% and 31% respectively) than are Asian, Native American, or Hispanic populations (6%, 13% and 8% respectively). This issue is compounded by the relative lack of cultural/linguistic capacity among providers and practitioners in California.[6]

County level variations in access to Medi-Cal behavioral health have also been identified in the data. When analyzing penetration rates for the expanded definition of mental health prevalence (the definition most likely to reflect the Medi-Cal expansion population), there is a range in penetration rates of 18% (Yuba County) to 3% (Sutter, Alpine and Sierra Counties). Within the large county category, there is a range of 10% (San Francisco) to 4% (Orange, Riverside and San Mateo Counties).

For substance use prevalence, the ethnic and geographic variations are similar. For example, penetration rates as a function of estimated prevalence of SUD for Hispanic people is 12%, whereas the rates are for African Americans (33%), Asians (34%), Native Americans (40%) and Whites (24%). At the county level, the range of penetration rates is from 14% (Lake County) to 1% (Orange, San Mateo, San Luis Obispo, Sutter, Colusa and Mono Counties). For the large counties, the range is from 7% (San Francisco) to 1% (San Mateo).

### *e) Gaps in evidence based practices and integrated care*

Between the years 2006—2010, only 1% of individuals received an EBP or identified service strategy consistent with best practice, as categorized by SAMHSA. The fact that the reported employment rate for consumers in the DMH database is only 2% (compared to a national average of over 20%) is evidence that recovery-focused EBPs are not having a widespread effect on adults with serious mental illness.

The new EBP services being implemented under the *Katie A.* settlement will significantly improve access of multi-system SED youth to best practice modalities. This is a relatively new development, and there is no data yet about the degree to which these EBPs are reaching high risk youth in the system.

With regard to substance use services, the system does use ASAM criteria and levels of care in some counties to determine level of care and to triage for needed services, which are considered to be good practice. However, evidence based practices such as medication assisted treatment, are sparsely implemented in the current SUD system, and there is opportunity to expand the use of EBP's for addiction services.

[6] As noted earlier in this summary, the prevalence calculation is based on comparisons of the estimated prevalence for each sub-group with the actual number of individuals within these sub-groups being served.

## K. TARGET AREAS FOR PLANNING

### 1. Prudent purchasing plan

TAC/HSRI recommends development of a comprehensive and uniform purchasing plan for DHCS, DMH and DADP. This purchasing plan would addresses critical system functions:

- intended results and outcomes for beneficiaries
- equity of access to services
- best practice array of services and clinical modalities for people at each level of care
- protocols and mechanisms for integrated treatment
- responsibilities of the counties, the plans, and their provider networks
- sufficient cultural/linguistic competency, use of health information technology, staff certified in evidence based practices
- leveraging financial risk for over spending or under spending
- incentives for performance

### 2. Strengthened local oversight

TAC/HSRI recommends that DHCS and its state partners assert a strong and coordinated role with regard to how money is spent for behavioral health services, who is served, what services they receive, and how performance of the system is assessed and rewarded. We have recommended that this approach extend to the physical health plans as well, since care must be coordinated across the boundaries of the physical and specialty health plans. We believe this centralized role as the prudent purchaser of services is both necessary and appropriate for the state level managing agencies.

We also recommend that the county role in managing the mental health and substance use systems in the context of the purchasing plan be strengthened and clarified. A comprehensive purchasing plan with uniform standards and measures of performance, and an equivalent benefit design across physical health and specialty plans will support counties to innovate with local customized approaches to attain statewide programmatic goals.

### 3. Integration of mental health and substance use service systems

DHCS and the counties need to address effective integration of mental health and substance use services. This needs to occur before integration of behavioral health and physical health can be fully implemented.

### 4. Benefit design for the expansion population

TAC/HSRI recommend that the essential benefit behavioral health services benefit design and service definitions be consistent between the Medi-Cal benchmark plan and the benchmark benefit for the exchange plans. We also recommend that DHCS assure that there is not a substantive gap between the benefit design for the benchmark plans and that for the specialty plans.

## L. NEXT STEPS

1. Public release of the needs assessment for review and comment: January 30, 2012
2. Completion of the public review and comment period: February 15, 2012
3. Submission of the needs assessment report to CMS: March 1, 2012

# II. INTRODUCTION

## A. BACKGROUND AND SCOPE

The California Department of Health Care Services (DHCS) contracted with the Technical Assistance Collaborative (TAC) and Human Services Research Institute (HSRI) (referenced throughout the report as TAC/HSRI), to conduct a Mental Health and Substance Use Needs Assessment (referenced throughout the report as the Needs Assessment) and to develop a Mental Health and Substance Use Service System Plan. The Needs Assessment was carried out to satisfy the Special Terms and Conditions required by the Centers for Medicare and Medicaid Services (CMS) as part of California's Section 1115 "Bridge to Reform" waiver approval.

The primary purpose of the Needs Assessment was to review the needs and service utilization of current Medicaid recipients and identify opportunities to ready Medi-Cal, California's Medicaid program, for the expansion of enrollees and the increased demand for services resulting from health reform. While the report is focused primarily on the Medi-Cal mental health and substance use systems, our review also included analysis of data from the State's Department of Alcohol and Drug Programs' California Outcomes Measurement System Treatment (CalOMS Tx) database, and the Department of Mental Health's Client and Services Information (CSI) data set. This was done to provide a full picture of the behavioral health system in California.

### 1. Bridge to Reform Waiver

California received approval for a Medicaid Section 1115 Demonstration waiver in November 2010. The impetus for the waiver was aligning the State's Medi-Cal program with federal health reforms that will be in place in January 2014. There are six primary goals for the waiver:

1. Provide coverage for "newly eligible" adults aged 19-64 with incomes up to 133% of the federal poverty level (FPL) who are not otherwise eligible for Medicaid;
2. Provide coverage for adults with incomes between 133% and 200% of poverty;
3. Initiate an accountable, coordinated system of care with a multi-year phased-in approach to address the needs of special populations such as Seniors and Persons with Disabilities (SPDs), Dual Eligibles, People with Mental Health and/or Substance Use challenges who need Integrated Care and Children with Special Health Care needs;
4. Expand the safety net care pool (SNCP) to assure support for safety net hospitals and other critical programs that are paid for through the SNCP;

5. Initiate improvements to the service delivery systems that will prepare the State for full implementation of health reform, and test strategies to slow the rate of growth in health care costs; and
6. Pilot public hospital payment reforms that align financial and quality care goals.

## B. HOW TO USE THIS REPORT

No single report can encapsulate the entirety of a state's needs and barriers, especially a state as large and varied as California. Nor can any single report be as detailed as stakeholders might like in order to capture details relevant to every county and for every subpopulation in the state. However, it is intended that this report provide a strong foundation on which to prioritize and plan changes and enhancements to the State's Medi-Cal system.

While a large system cannot change overnight, important gains can be made quickly if those in positions to take action can agree on goals, priorities and action steps. This report is designed to provide data and information that can be used by state officials, county authorities, consumers and families, providers and advocates to identify those goals and priorities. TAC/HSRI hopes this report will provide a solid basis for a collaborative service system planning process.

Given the large amount of data analyzed for this report, a companion document contains the numerous data tables and figures that are too large to integrate within the narrative. This way the reader can review the narrative alongside the accompanying data. This companion document, "California Mental Health and Substance Use Needs Assessment Appendices," contains four sections:

- Appendix A includes the data tables from our analysis of Medi-Cal claims and encounter data;
- Appendix B includes the data tables from the analysis of the Department of Alcohol and Drug Programs' (DADP) California Outcomes Measurement System Treatment (CalOMS) data set;
- Appendix C includes the data tables from our analysis of the Department of Mental Health (DMH) Client and Services Information (CSI) data set; and
- Appendix D includes our analysis of Medi-Cal provider data.

Some tables and figures are included within the narrative or at the end of the chapter as an attachment. In terms of titling conventions, a data table within the narrative will be referred to as Table X; if the information is located in an attachment to the chapter, it will be referred to as Attachment X; if the data

element being discussed is located in the companion document, it will be described as Appendix X, Table X.

In addition to the companion document described above, a separate file contains both the statewide and county-level prevalence estimates for mental health and substance use disorders discussed in Chapter III. Given the size and volume, this information could not be included in the Appendix. This file can be downloaded by going to:
*http://www.dhcs.ca.gov/provgovpart/Pages/BehavioralHealthServicesAssessmentPlan.aspx*

It should also be noted that we produced much more data than is discussed or referred to within the narrative of this report. We encourage readers to review the wealth of data about the mental health and substance use system in California that is located in the four appendices to this report. We hope this explanation offers a basic orientation to how to locate information and use this report.

## C. ACKNOWLEDGEMENTS


### 1. Funders

The Needs Assessment and Service System Plan were supported by a grant from the California Endowment. TAC/HSRI wishes to thank the Endowment for their input and assistance with this report. Additional funding was provided by the Substance Use and Mental Health Services Administration (SAMHSA) through a subcontract with Deloitte.

### 2. Stakeholders, county and state personnel

TAC/HSRI wishes to thank all of the participants for their help in making this a comprehensive and well-rounded report. Specifically, we wish to thank the Department of Health Care Services (DHCS), the Department of Alcohol and Drug Programs (DADP), and the Department of Mental Health (DMH) state agency personnel and all of the county directors for identifying documents, arranging key informant interviews, assisting with data interpretation, and scheduling meetings. Finally, with much gratitude, we wish to thank the numerous consumers, family members, providers, advocates, and associations for their time and input into this process. TAC/HSRI could not have learned what we did in so short a time without the assistance and input of all these individuals.

## D. APPROACH TO THE ASSESSMENT

### 1. Planning effort description

There are two phases to the work being completed by TAC/HSRI as part of the Special Terms and Conditions of the Bridge to Reform Waiver. The first phase, on which this report is based, is the Needs Assessment, which occurred from May 2011 through February 2012. The second phase, the service system planning process, will be conducted from March 2012 through September 2012.

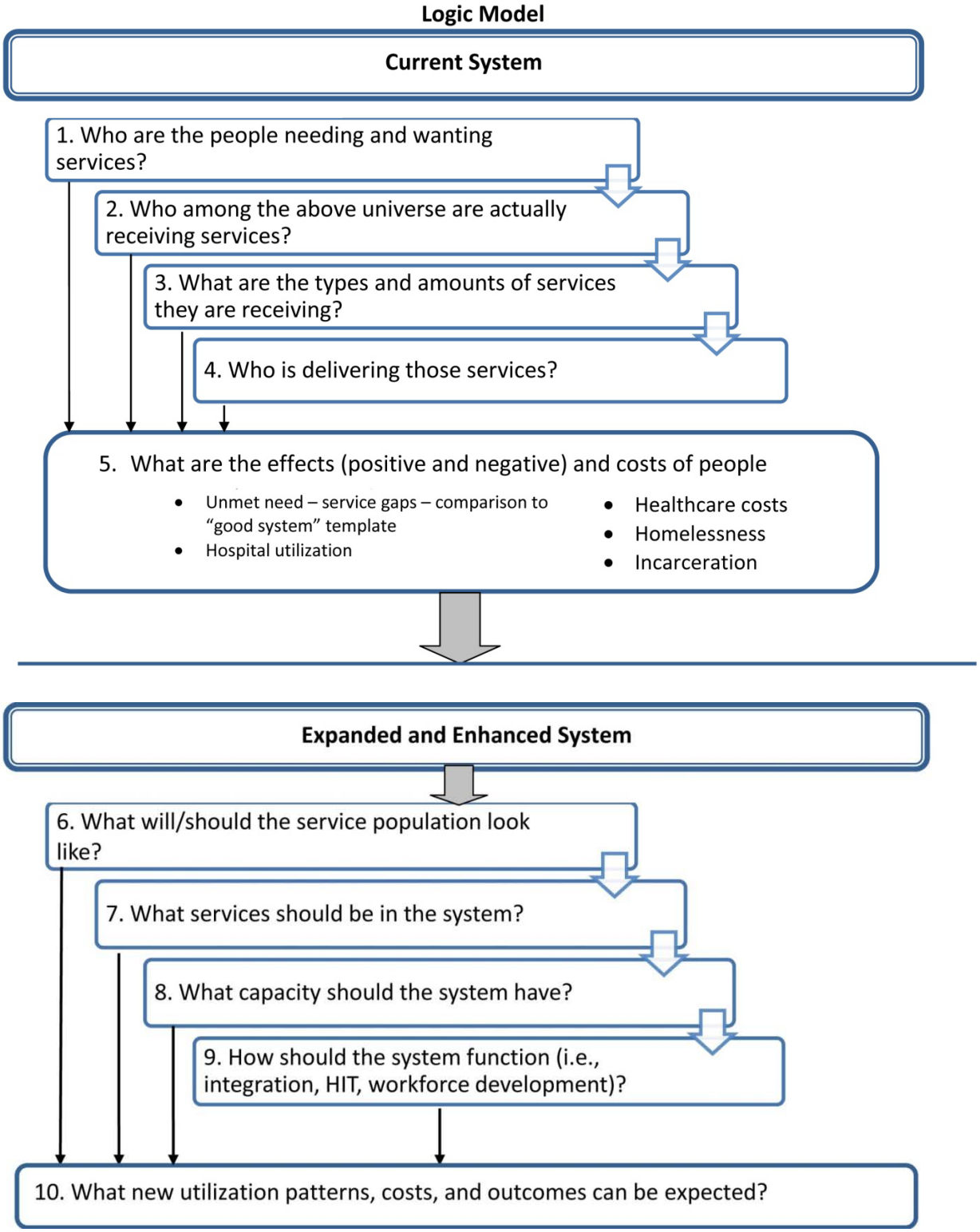
Phase two will commence after completion of the Needs Assessment, culminating in a Service System Plan that will be submitted to the Centers for Medicare and Medicaid Services (CMS) by October 1, 2012. The Service System Plan will build on the Needs Assessment findings and will address service recommendations, strategies, financing and implementation activities for the Medi-Cal substance use and mental health system. The Service System Plan will also address interactive strategies related to the substance use and mental health block grants and other systems that interface with the Medicaid-funded behavioral health system.

Both the Needs Assessment and the accompanying planning process involve a large scale quantitative analysis of Medi-Cal, DMH and DADP participant characteristics, claims and encounters, as well as an in-depth qualitative analysis of input from stakeholders, consumers, associations, county and state personnel. As there are two related but discrete reports, not all of the results of the aforementioned analyses will be found within this report, but may be contained within the later Service System Plan.

### 2. Logic model and goals

The top part of the logic model below reflects the major questions driving the assessment process; the bottom half depicts the service system planning process.

**Figure 1. Logic model for needs assessment and service system plan**



The process outlined in the model is intended to achieve the six main goals of the Needs Assessment:

1. Estimate the prevalence of substance use disorders and mental illness;
2. Quantify current utilization of substance use and mental health services in Medi-Cal;
3. Project numbers for and characteristics of the expansion population coming to Medi-Cal in 2014;
4. Identify issues related to certain special populations enrolled in the Medi-Cal program regarding access, service needs and specialized providers;
5. Quantify information related to current Medi-Cal behavioral health providers; and
6. Identify key system infrastructure issues related to health integration and health information technology (HIT) that can support effective service delivery.

## 3. Overview of the analytic approach

The Project employed advanced statistical methods in estimating prevalence, analyzing utilization, and determining need and gaps in services for systems at the state and county levels. These methods were designed to provide a range of information that is based on scientific concepts and approaches where such exist and to take account of the ideas and opinions of policymakers, providers, service recipients, families, and advocates who are impacted by the needs and gaps that exist.

In some cases, these methods are the best of what is available in the field, such as synthetic estimation. Some of the approaches are based on research of the literature in the field. Others are based on a combination of a literature review, a review of the California-specific data and input from system stakeholders and key informants, and TAC/HSRI's extensive expertise analyzing similar data in other states.

The quantitative methods used were thorough, allowing for a comprehensive picture of California's needs and gaps. The methods utilized include:

- Synthetic estimations of mental health and substance use need statewide and by county;
- Data analysis of populations served, service utilization, claims, and other system indicators from multiple sources including DHCS, DADP and DMH;
- Collection and analysis of provider capacity data from multiple sources;
- Key informant interviews; and
- National and state document reviews.

Within each of the chapters of the report, further explanation of the specific methods and information sources are identified.

As part of the qualitative analysis, TAC/HSRI conducted interviews with over 140 people individually or in small focus groups. These individuals included consumers and families, providers, county officials, state personnel, advocates, and associations. A complete listing can be found in Attachment 1 to this chapter. The themes that emerged from these meetings, interviews and reviews of written materials are included throughout this report. Additionally, the TAC/HSRI team reviewed innumerable documents related to the California system, a listing of which can be found in Attachment 2 to this chapter.

## 4. Framework

There are several national guideposts that provide leadership and policy direction for this Needs Assessment. These include: the President's New Freedom Commission on Mental Health; the Institute of Medicine's report on *Improving the Quality of Health Care for Mental and Substance-Use Conditions;* the U.S. Preventive Services Task Force (USPSTF); the Surgeon General reports *Mental Health: A Report of the Surgeon General* and *Mental Health: Culture, Race and Ethnicity*. More recently, the Substance Use and Mental Health Services Administration (SAMHSA) released a brief in August 2010 entitled *Description of a Good and Modern Addiction and Mental Health Service System.*[7] This brief was used as the framework for this report.

The "Good and Modern" paper addresses addiction and mental health treatment in the context of health reform, and provides clear direction on the opportunities to modernize service system infrastructure, benefit design and financing. The following vision is outlined in the paper:

> *"A modern mental health and addiction service system provides a continuum of effective treatment and support services that spans healthcare, employment, housing and educational sectors. Integration of primary care and behavioral health are essential. As a core component of public health service provision, a modern addictions and mental health service system is accountable, organized, controls costs and improves quality, is accessible, equitable, and effective."*

The brief provides an opportunity for state and county systems to orient their assessment and planning efforts in order to achieve the results described in Table 1 below.

[77] Substance Use and Mental Health Services Administration (2010). *Description of a Modern Addictions and Mental Health Service System* (draft). Retrieved on December 20, 2011 from: *http://www.samhsa.gov/healthreform/docs/AddictionMHSystemBrief.pdf*

### Table 1. System results

| | |
|---|---|
| **Result 1** | People get well and stay well. |
| **Result 2** | A benefit package, within available funding, that supports recovery and resilience, including prevention and early intervention services, an emphasis on cost-effective, evidence-based and best practice service approaches, with special consideration for service delivery to rural and frontier areas and to other traditionally un-served and underserved populations, like populations of color. |
| **Result 3** | A system that integrates high quality medication management and psychosocial interventions so that both are available to consumers as their conditions indicate. Services are available and provided in the appropriate "therapeutic dose." |
| **Result 4** | Promoting program standards, including common service definitions, utilization management measurements/criteria, quality requirements, system performance expectations, and consumer/family/youth outcomes. |
| **Result 5** | Creation of an adequate number and distribution of appropriately credentialed and competent primary care and behavioral health care providers. |
| **Result 6** | Local systems of care in which primary care and behavioral health providers and practitioners are aligned with one another and with other systems. |
| **Result 7** | Funding strategies that will be sufficiently flexible to promote efficiency; control costs; and pay for performance. |

## E. NATIONAL CONTEXT

The Needs Assessment occurred within the broader context of national health reform and other large-scale efforts to improve the quality and delivery of mental health and substance use services. These include efforts to ensure parity for mental health and addictions treatment, to ensure compliance with the Americans with Disabilities Act and *Olmstead*, and to bolster SAMHSA's Strategic Initiatives,[8] in addition to such issues as Early and Periodic Screening, Diagnosis, and Treatment (EPSDT).

The Patient Protection and Affordable Care Act (ACA) will lead to fundamental changes in the way that health care is delivered and financed. At the time of this report, several key aspects of ACA provisions that impact behavioral health (such as MCO parity regulations) had yet to be released – or in the case of the essential health benefits, had only just been released with California's decision regarding benchmark plan selection still pending. Additionally, the Supreme Court's decision regarding the constitutionality of the individual mandate and the expansion of the Medicaid program under the ACA, expected summer 2012, could alter the current scope of health reform and impact the many policy decisions and activities underway in the states.

[8] SAMHSA's strategic initiatives are: 1) prevention of substance use and mental illness, 2) trauma and justice, 3) military families, 4) recovery support, 5) health reform, 6) health information technology, 7) data, outcomes and quality, and 8) public awareness and support.

An interrelated aspect of health reform is how other systems will alter their funding priorities as a result of the expansion of persons covered by insurance and the new service and financing opportunities available. Specific to behavioral health, SAMHSA has defined a plan whereby it will change how it administers the Community Mental Health Services Block Grant (MHSBG) and Substance Use Prevention and Treatment Block Grant (SAPTBG). Given the availability of Medicaid and Health Insurance Exchanges, SAMHSA will redirect its funding toward: persons who remain uninsured or experience breaks in coverage; certain treatment and support services not covered by Medicaid, Medicare or private insurance; primary prevention; and performance and outcome measurement.

## F. STATE CONTEXT

### 1. Overview

Significant state changes occurred during this assessment and planning process. First, legislation was adopted that transitioned Medi-Cal state administrative functions from DMH and DADP to DHCS (by July 1, 2012). At time of this report, the Governor's Budget for FY 2012-13 proposes the elimination of DMH and DADP and the transfer of several non-Medi-Cal community mental health programs and substance use programs to DHCS, also effective July 1, 2012. DHCS will create a new position, the Deputy Director of Mental Health and Substance Use Disorder Services, who will oversee two new organizations: the Mental Health Services Division/Office and the Substance Use Disorder Treatment Services Division/Office.

Second, approved legislation led to a Realignment Plan whereby counties would assume programmatic and financial responsibility for certain criminal justice, EPSDT, child welfare, substance use and mental health spending that had previously been held at the state level. While some realignment was specific to substance use and mental health, it also involves increased county responsibilities related to certain populations (child welfare and criminal justice involved persons) with significant behavioral health needs.

Finally, while all states are experiencing severe budget crises, the scale of California's deficit is significant, nearing $6.1 billion for the 2010-11 year end.[9]

California has a total population of 36.9 million people, of which 7.5 million are Medicaid enrollees and approximately 6.7 million are uninsured. As with most states, California has a patchwork of funding for behavioral health services that includes Medicaid, mental health and substance use, aging and long-term

[9] Legislative Analyst's Office. (November 2011). *The 2011-2012 Budget: California's Fiscal Outlook.* Sacramento, CA: Author.

care, public health, child welfare, developmental disabilities, criminal justice, juvenile justice and local education authorities. As mentioned previously, this scope of work is specific to Medi-Cal and data from the DMH Client and Services Information data set and the DADP's CalOMS Treatment data set.

California's Medi-Cal program spends approximately $42 billion annually. [10] In 2009, Medi-Cal spending for mental health was $3,402, 989, 285 and $406,019,354 was spent on substance use treatment, with $167.2 million for the specialty Drug Medi-Cal program.[11] Mental Health Services Act (Prop 63) funding has provided a significant source of revenue for mental health services in the state: Since its inception in November 2004 through the end of FY 2009-10, it has generated $6.5 billion in additional revenues for mental health services [12] In FY 2011-12 California received approximately $399,752,333 in SAMHSA funding with $249,428,956 from the Substance Use Prevention and Treatment Block Grant, $53,096,425 from the Community Mental Health Block Grant, and the remainder from other formula and discretionary grant funding.[13]

In California, the state and 58 county governments administer and fund an array of health and social services, leveraging federal match for Medicaid-related services. As previously mentioned, realignment transferred certain behavioral health programs from the state to county control, providing counties with sales tax and vehicle license fee funding. The counties are responsible for a variety of activities related to the provision of mental health services, including:[14]

- Establishing a community mental health service program and a local mental health advisory board.
- Determining local funding levels, eligibility, and services provided to non-Medi-Cal eligible individuals.

[10] Department of Health Care Services. (2011). *Medi-Cal Local Assistance Estimate for Fiscal Years 2010-11 and 2011-12.* Retrieved on December 21, 2011 from: *http://www.dhcs.ca.gov/dataandstats/reports/mcestimates/Documents/2011_May_Estimate/M11_Budget_Year_Tab.pdf*

[11] These figures are based on claims data from 2009 using codes identified as mental health and substance use services. These figures likely represent an undercount of actual services delivered and expenditures.

[12] California Department of Mental Health. (2011). Mental Health Services Act Expenditure Report: FY 2011-12. Retrieved on December 21, 2011 from: *http://www.dmh.ca.gov/prop_63/MHSA/Publications/docs/MHSA_May_Revise_Expend_Report_06-09-2011.pdf*

[13] Substance Use and Mental Health Services Administration. (2011). Retrieved on December 21, 2011 from: http://www.samhsa.gov/Statesummaries/StateSummaries.aspx

[14] Kelch, D.R., (2011). *The Crucial Role of Counties in the Health of Californians: An Overview.* Oakland, CA: California HealthCare Foundation.

- Providing or contracting for specialty mental health services for Medi-Cal beneficiaries who meet eligibility criteria for these services including EPSDT services to youth with mental health and substance use needs.[15]
- Directing ongoing Mental Health Services Act (MHSA) funding for community services and supports, prevention and early intervention, and innovative programs and services.
- Providing mental health services to youth with serious emotional disturbance enrolled in the Healthy Families (SCHIP) program.
- Providing services for involuntarily committed individuals.

The counties do not have statutory responsibility to offer or provide substance use treatment services; however, all of the counties contract with DADP to administer local substance use treatment programs (not all include Drug Medi-Cal) and receive an allocation from the state to do so.[16] Counties are also not obligated to participate in the Drug Medi-Cal (DMC) program. Nineteen counties do not participate in the DMC program but in four of the 19 counties, the state DADP contracts with providers to offer DMC services[17] Counties also provide services to individuals convicted of non-violent drug offenses under Prop 36, though all state funding was recently eliminated for this program.

## 2. Mental health Medi-Cal

An array of mental health services are covered for individuals who meet medical necessity criteria by the county Medi-Cal managed care mental health plans (MHPs) under the State's 1915(b) waiver, including:

- EPSDT (including but not limited to Therapeutic Behavioral Services);
- Mental health services;[18]
- Mental health outpatient services;
- Medication support services;
- Day treatment intensive program;
- Day rehabilitation;
- Crisis intervention;

[15] Counties are not required to operate a local Medi-Cal mental health plan; however, there are mental health plans operating in all 58 counties – with Sutter/Yuba having a combined plan and Placer County including Sierra County.
[16] Kelch, D.R., (2011). *The Crucial Role of Counties in the Health of Californians: An Overview.* California HealthCare Foundation.
[17] Ibid.
[18] Mental Health Services are individual, group or family-based interventions that are designed to provide reduction of the beneficiary's mental or emotional disability, restoration, improvement and/or preservation of individual and community functioning, and continued ability to remain in the community consistent with the goals of recovery, resiliency, learning, development, independent living and enhanced self-sufficiency. This service includes an assessment, service plan development, therapy, rehabilitation, and collateral contact.

- Crisis stabilization;
- Adult residential treatment services;
- Crisis residential treatment services;
- Psychiatric health facility services;
- Psychiatric inpatient hospital services; and
- Targeted case management services.

All of these "specialty" mental health services including the Medicaid Rehab option, Targeted Case Management option, and psychiatric inpatient hospital services are included in the State Plan and are delivered under the 1915(b) waiver. These services are managed by county MHPs. The 1915(b) waiver requires all Medi-Cal beneficiaries to access behavioral health services through the county MHP.

Beneficiaries with less severe mental health needs that do not meet the "medical necessity criteria" for the 1915(b) waiver may receive a more limited array of services through Medi-Cal fee-for-service or Medi-Cal managed care plans. For fee-for-service, mental health outpatient services have a limit of two visits per month and are designed to address diagnoses not covered by the county MHPs. In addition, all pharmacy care for Medi-Cal beneficiaries is provided through the fee-for-service program. Medi-Cal Managed Care plans cover certain outpatient mental health services provided by primary care physicians and psychotherapeutic drugs prescribed by primary care providers, emergency department care, and other professional services (excluding those provided by specialty mental health providers); emergency and non-emergency medical transportation services; and laboratory services when necessary for the diagnosis, monitoring, or treatment of a member's mental health condition.

### 3. Drug Medi-Cal

The Drug Medi-Cal Program provides five modes of treatment services with annualized expenditures of approximately $406,019,354. Drug Medi-Cal covered services include:

- Outpatient drug free;
- Narcotic replacement therapy;
- Day rehabilitation (for EPSDT and pregnant women);
- Naltrexone;
- Perinatal residential services for pregnant and parenting women.

County participation in Drug Medi-Cal is not required, and Medi-Cal beneficiaries are not restricted to receiving services in their county. Nineteen counties do not provide DMC services. In four of the 19

counties, the state DADP contracts with providers directly to offer DMC services.[19] There are 15 counties that currently have no certified DMC providers offering services; however, these counties are either in the process of becoming DMC certified to provide services or are considering other options to serve DMC clients.

Additionally, a limited fee-for-service Medi-Cal benefit is available for services provided by licensed physicians and detoxification on an inpatient basis. Medi-Cal Managed Care plans exclude from their contracts all services available under the Drug Medi-Cal Treatment Program as well as outpatient drug therapies that are listed in the Medi-Cal Provider Manual as alcohol and substance use treatment drugs, and reimbursed through the Medi-Cal fee-for-service program. Managed care plans are required to assess members' need for substance use treatment and refer Medi-Cal recipients to county programs. Managed care plans are also required to assist recipients with treatment access if county services are not available.

## G. LIMITATIONS AND CONSTRAINTS

### 1. Data limitations

Every assessment has limitations and constraints. First, data was extracted and analyzed from three management information systems: DHCS, DADP and DMH. Because the service utilization data was based on services and supports that were billed to Medicaid or administered through DADP or DMH, it is impossible to capture a complete service summary. Some programs, such as drop-in centers or warm-line services, receive separate funding and do not bill services based on individual service users. Thus, these programs were not captured in the service utilization data, although many service users may be using them as part of their service packages. Additionally, our data do not capture services and supports that were delivered through other state and county agencies or social service organizations that do not bill Medicaid or send data to DADP or DMH on service utilization.

There are also well-known limitations to using billing data (e.g., DHCS data) for research and planning. These include poor validity and completeness of primary diagnoses, a time lag for availability, a potential for coding bias based on reimbursement rates, and the potential that the billing date accounts only for services paid and not necessarily all services provided. Additionally, data issues related to lining up procedure codes to behavioral health services result in underestimations of behavioral health service utilization. This would lead to a general undercount of some services, but not at a level that would prevent a system level analysis on gaps in the system. The data team will continue to work through as

[19] Kelch, D.R., (2011). *The Crucial Role of Counties in the Health of Californians: An Overview.* Oakland, CA: California HealthCare Foundation.

many of these data issues in support of the planning stage, wherein more precise numbers would be beneficial.

It is also important to recognize that available data can only tell part of the story. Quantifiable data is not available on all aspects of the behavioral health system; moreover, even when quantifiable data is available, the rendering can still be incomplete due to benefit design, covered populations, access issues and provider network issues. TAC/HSRI had to employ qualitative interviews, estimation techniques and application of best practice knowledge from county examples and other states in this report.

This report also does not address the behavioral health system in its entirety in California. Numerous state and county agencies such as child welfare, criminal justice, juvenile justice and local education authorities purchase and/or deliver substance use and mental health services. While TAC/HSRI examined the interactions between those systems and Medi-Cal, DADP and DMH services, our scope of work did not include analysis of those other systems.

## 2. Timeline

Completing such an extensive project within the time allotted was a challenge. The Needs Assessment began in May 2011. With the final Needs Assessment report due to CMS on March 1, 2012, the TAC/HSRI Team had to develop a first draft of the Needs Assessment report by January 2012. Consequently, TAC/HSRI had a seven-month period in which to collect all data and information, identify, schedule and conduct interviews, and analyze qualitative and quantitative data related to three state agencies. Some things could not be accomplished in this time frame and will be considered as part of the service system planning process.

# ATTACHMENT 1: KEY INFORMANT LIST

| NEEDS ASSESSMENT KEY INFORMANT LIST | | |
|---|---|---|
| **Last Name** | **First Name** | **Organization/Agency** |
| Adelman | Marty | The Council of Community Clinics (San Diego regional clinic consortium) |
| Aguirre | Alfredo | San Diego County |
| Alevizos | Peter | Alameda County |
| Almanza | Jaime | BACS (Alameda) |
| Alvarez | Lily | Kern County |
| Anonymous | | Alcohol & Drug Programs Consumer Group (Members names will remain anonymous due to confidentiality concerns) |
| Arns | Paul | Los Angeles County |
| Aslami | Khatera | PEERS (Alameda) |
| Bachman | John | El Dorado Community Health Center |
| Bachrach | Ken | Tarzana Treatment Centers |
| Baird | Vanessa | Department of Health Care Services |
| Banerjee | Kakoli | Santa Clara County |
| Baptista | Lori | Tiburcio Vasquez Health Center |
| Bengyel | Kristen | Amador County |
| Bierdrage | Christine | Inland Behavioral and Health Services |
| Blacksher | Susan | California Association of Addiction Recovery Resources |
| Borenstein | Penny | Department of Mental Health |
| Bower | Susan | San Diego County |
| Bright | Steve | Department of Alcohol & Drug Programs |
| Brown | Eric | California Telehealth Network |
| Brzovic | Dan | Disability Rights California |
| Burkan | Amber | California Youth Empowerment Network, MHA of CA |
| Burns | Michelle | TAY/PREP (Alameda) |
| Burns Bergman | Gretchen | A New PATH |
| Callori | Jalynne | Department of Health Care Services |
| Casida | Jon | Kern County Hispanic Commission (Kern) |
| Cheung | Julie | CalMEND Consultant |
| Chin | Lauren | San Diego County |
| Cole | Nora | Family Health Centers (San Diego) |
| Coonce | Orville | Mental Health Systems (San Diego) |
| Coppolla | Chris | San Mateo County |
| Corse | Lynn | College Community Services (Kern) |
| Cristo | Erika | Department of Mental Health |
| Crouch | Jim | CA Rural Indian Health Board |
| Cryer | Stacey | Mendocino County |
| Currie | Peter | Inland Empire Health Plan |
| Dahlquist | Betty | CA Association of Social Rehabilitation Agencies |
| Dimas | Juanita | Tri-City Health Center |
| Eberhardt-Rios | Sarah | San Bernardino County |
| Eliason | Mickey | LGBT-TRISTAR/ Gil Gerard & Associates |
| Ewing Marto | Donna | Family & Youth Roundtable |
| Facher | Nancy | La Clinica de la Raza |
| Figueroa | Richard | California Endowment |

| Last Name | First Name | Organization/Agency |
|---|---|---|
| Fleming | Deane | Colusa County |
| Frediani | Leda | Alameda County |
| Fullington | Jill | Del Norte County |
| Gamez | Lynette | Kern County |
| Glasco | Robin | Shasta Community Health Center |
| Gleghorn | Alice | San Francisco Department of Public Health |
| Gold | Marlene | Alameda County |
| Gomes | Millicent | Department of Alcohol & Drug Programs |
| Gore | Paul | The Saban Free Clinic |
| Gould | Daniel | LGBT Health & Human Services Network, Equality CA |
| Griffith | John | Department of Mental Health |
| Hardcastle | Laura | Department of Health Care Services |
| Harris | Keith | San Bernardino County |
| Harsh | Anita | Lassen County |
| Hernandez | Belinda | Ravenswood Family Health Center |
| Homewood | Allison | California Primary Care Association |
| Homman | Tanya | Department of Health Care Services |
| Jaccard | Shannon | NAMI (San Diego) |
| Johnson | Alison | Community Health Alliance of Pasadena |
| Kahn | Glen | Department of Health Care Services |
| Kaplan | Stephen | San Mateo County |
| Kemper | Lee | County Medical Services Program (CMSP) |
| Kim | Tina | Community Clinic Association of LA County |
| Kingdon | Don | California Mental Health Directors Association |
| Kletter | Jason | CA Opiod Maintenance Providers (COMP) |
| Knapp | Penny | Department of Mental Health |
| Koelger | Victor | Alcohol & Drug Policy Institute |
| Kokkos-Gonzales | Dina | Department of Health Care Services |
| Kruckenberg | Sheree | California Hospital Association |
| Lagorio | Anne | Trinity County |
| Lamirault | Ingrid | Alameda Alliance for Health |
| Landry | Laura | Western Health Information Network |
| Leon | Alejandro | Clinica Sierra Vista |
| Lessley | John | Department of Mental Health |
| Lewis | Marshall | San Diego County |
| Lind | Mimi | Venice Family Clinic |
| Madover | Scott | CHANGES (Alameda) |
| Majak | Barbara | Alameda County |
| Malara | Jennifer | College Community Services (Kern) |
| Mannel | Kevin | Lassen County |
| Matthews | Donna | Working Well Together and CiMH |
| McKisson | Marjorie | Department of Alcohol & Drug Programs |
| McVean | Sue | Tehama County |
| Miles | Patrick | San Mateo County |
| Millow | Candace | San Diego County |
| Morowitz | Rita | Department of Health Care Services |

| Last Name | First Name | Organization/Agency |
|---|---|---|
| Morris | Linda | Lake County |
| Murata | Dennis | Los Angeles County |
| Mynderse | Barent | Rady's Children's Hospital (San Diego) |
| Naylor Goodwin | Sandra | California Institute for Mental Health (CIMH) |
| Neilsen | Dave | Department of Alcohol & Drug Programs |
| Novosel | Carolyn | Children's Services (Alameda) |
| Ogle | Jane | Department of Health Care Services |
| Paine | Janet | Family HealthCare Network |
| Perat | Mavi | UCLA/CA Healthcare Foundation |
| Pinizzotto | Tom | Mendocino County |
| Quider | Rob | Department of Health Care Services |
| Rainwater | Mary | The Tides Foundation/IBHP |
| Ranney | Molly | Central City Community Health Center |
| Rappaport | Sharon | Corporation for Supportive Housing |
| Ratner | Robert | Alameda County |
| Redondo | Cecelia | San Diego County |
| Reilly | Chris | Clinica Sierra Vista |
| Reinhardt | Bettie | NAMI California |
| Renfree | Tom | County Alcohol & Drug Program Administrator's Association |
| Rico | Luis | Department of Health Care Services |
| Roberts | Carolyn | Sierra County |
| Rogers | Diego (James) | Community Research Foundation (San Diego) |
| Rogers | Louise | San Mateo County |
| Rucker | Madalynne | ONTRACK Program Resources |
| Sands | Bob | Department of Health Care Services |
| Santiago | Rene | San Diego County |
| Saviano | Elizabeth | Legal counsel for CPCA and many clinic clients |
| Schaffer | Jennifer | San Diego County |
| Schweigman | Kurt | Native American Health Center of Oakland |
| Scott | Linette | Department of Public Health |
| Selix | Rusty | California Council of Community Mental Health Agencies |
| Shilton | Adrienne | California Institute for Mental Health (CIMH) |
| Skaggs | Felicia | Kern County |
| Sorg | Jim | Tarzana Treatment Centers |
| Southard | Mary | Los Angeles County |
| Spicer | Gary | Alameda County |
| Srinivasan | Srija | San Mateo County |
| St. George | Lisa | Recovery Innovations of CA (San Diego) |
| Stier | Sandy | Alameda County |
| Thomas | Marye Thomas | Alameda County |
| Thorfinnson | Terri | Department of Health Care Services |
| Trabin | Tom | CJMH (Alameda) |
| Tripp | Perry | CA Network of Mental Health Clients |
| Tullys | Toni | Alameda County |
| Viernes | John | Los Angeles County |
| Walters | Dan | Kern County |

| Last Name | First Name | Organization/Agency |
|---|---|---|
| Warder | Rosa | FERC (Alameda) |
| Waterman | Jim | Kern County |
| Willburn | Sam | Department of Health Care Services |
| Wong | Jenny | Department of Mental Health |
| Wortell | Kevin | Department of Alcohol & Drug Programs |
| Wright | Oscar | United Advocates for Children & Families |
| Yamamoto | Marcia | Department of Alcohol & Drug Programs |

# ATTACHMENT 2: DOCUMENTS REVIEWED

**Documents Reviewed**

| AUTHOR | TITLE | DATE |
|---|---|---|
| Administration and Policy in Mental Health | The Impact of Realignment on Utilization and Cost of Community-based Mental Health Services in California | 11/1/01 |
| Administration and Policy in Mental Health | The Impact of Realignment on the Client Population in California's Public Mental Health System | 1/1/02 |
| Allen, Shea & Associates | California's Public Mental Health Workforce: A Needs Assessment | 8/15/09 |
| Allen, Shea & Associates | Licensed Mental Health Professionals in California | 6/30/09 |
| APS Healthcare | California External Quality Review Organization Statewide Report, Year 5 | 6/30/09 |
| APS Healthcare | CAEQRO Report, FY10-11 Los Angeles | 4/21/11 |
| APS Healthcare | CAEQRO Report, FY11-12 Tehama | 8/3/11 |
| APS Healthcare | CAEQRO Report, FY10-11 San Francisco | 3/3/11 |
| APS Healthcare | CAEQRO Report, FY11-12, Shasta | 7/14/11 |
| APS Healthcare | CAEQRO Report, FY11-12, Del Norte | 7/28/11 |
| APS Healthcare | CAEQRO Report, FY11-12, Sonoma | 8/11/11 |
| APS Healthcare | CAEQRO Report, FY11-12, Colusa | 8/17/11 |
| APS Healthcare | CAEQRO Report, FY11-12, Kings | 9/15/11 |
| APS Healthcare | CAEQRO Report, FY 10-11, Alameda | 10/6/10 |
| APS Healthcare | CAEQRO Report, FY10-11, Riverside | 12/16/10 |
| Board of Behavioral Sciences | Demographic Report on Licensees and Registrants- Summary | 12/1/07 |
| California Council of Community Mental Health Agencies | Mental Health Substance Abuse and Physical Health Integration and Coordination in Medi-Cal | 2/25/10 |
| California Department of Alcohol and Drug Problems | Continuum of Services System Re-Engineering, Phase II Task Force Report | |
| California Department of Mental Health | Mental Health Services Act Expenditure Report Fiscal Year 2010-11 | 1/1/11 |
| California Department of Mental Health | Mental Health Services Act Five-Year Workforce Education and Training Development Plan | 4/1/08 |
| California Department of Mental Health | 2009-2014 Strategic Plan | 1/1/09 |
| California Department of Mental Health | Effectiveness of Integrated Services for Homeless Adults with Serious Mental Illness | 1/1/00 |

| AUTHOR | TITLE | DATE |
|---|---|---|
| California Department of Mental Health | Adult Mental Health Needs in California: Findings from the 2007 California Health Interview Survey | 1/1/07 |
| California Department of Mental Health, Office of Multicultural Services | Latino Access Study: Final Report | 6/1/09 |
| California Health and Human Services Agency | Implementation of the Affordable Care Act in California: A Window of Opportunity for State Policy Makers | 12/1/10 |
| California Health and Human Services Agency | California Health Information Exchange Program Status Report | 4/1/11 |
| California HealthCare Foundation | Implementing National Health Reform in California: Changes to Public and Private Insurance | 6/1/10 |
| California HealthCare Foundation | The Crucial Role of Counties in the Health of Californians: An Overview | 3/1/11 |
| California HealthCare Foundation | Fewer and More Specialized: A New Assessment of Physician Supply in California | 6/1/09 |
| California HealthCare Foundation | Where the Money Goes: Understanding Medi-Cal's High-Cost Beneficiaries | 1/1/10 |
| California HealthCare Foundation | The State of Health Information Technology in California | 1/1/11 |
| California Mental Health Planning Council | Electronic Personal Health Records | 6/1/11 |
| California Social Work Education Center | County Workforce, Education, and Training Plans: Preliminary Findings | 5/6/11 |
| Center for Mental Health Services Division of State and Community Systems Development | Community Mental Health Services Block Grant | 1/1/10 |
| Center for the Health Professions at the University of California, San Francisco | The Mental Health Workforce in California: Trends in Employment, Education, and Diversity | 3/1/09 |
| Center for the Health Professions at the University of California, San Francisco | Restructuring California's Mental Health Workforce: Interviews with Key Stakeholders | 3/1/09 |
| Center for the Health Professions at the University of California, San Francisco | The Mental Health Workforce in California: Trends in Employment, Education, and Diversity | 3/1/09 |

| AUTHOR | TITLE | DATE |
|---|---|---|
| Contra Costa County Mental Health Services | Cultural Competence Plan 2010 | 9/1/10 |
| County Alcohol and Drug Program Admission Association of California and County Mental Health Directors Association | Co-Occurring Mental Health and Alcohol and Other Drug Use Disorders | 12/1/04 |
| County of Los Angeles Department of Mental Health | Mental Health Services Act Workforce Education and Training Plan, FY 2006-07 to 2008-09 | 10/15/08 |
| County of Los Angeles Department of Mental Health | 2010 Cultural Competence Plan Requirements | 9/1/10 |
| County of Orange Health Care Agency, Behavioral Health Services | Mental Health Services Act Workforce Education and Training Component Three-Year Program and Expenditure Plan, FY 2006-07 to FY 2008-09 | 4/2/08 |
| County of San Diego Behavioral Health Services | Cultural Competence Plan 2010 | 9/1/10 |
| Department of Alcohol and Drug Programs | Treatment Standards for Substance Use Disorders: A Guide for Services | 5/1/10 |
| Department of Healthcare Services | Targeted Case management Services SPA | 7/1/10 |
| Department of Healthcare Services | Rehabilitative Mental Health Services SPA | 10/1/10 |
| Department of Healthcare Services | Section 1115 Waiver Concept Paper | 12/16/09 |
| Department of Healthcare Services | Transition Plan: Transfer of Medi-Cal Related Specialty Mental Health Services | 10/1/11 |
| Department of Healthcare Services | Specialty Mental Health Services SPA Stakeholder Meeting | 10/6/10 |
| Department of Healthcare Services | Specialty Mental Health Services Stakeholder Meeting | 7/30/10 |
| Department of Healthcare Services | Specialty Mental Health SPA Stakeholder Meeting | 8/6/10 |
| Department of Healthcare Services | Behavioral Health Integration (BHI) Technical Workgroup Meeting Minutes | 3/26/10 |
| Department of Healthcare Services | Behavioral Health Integration (BHI) Technical Workgroup Meeting Minutes | 4/28/10 |
| Department of Healthcare Services | Dual Eligibles Technical Workgroup Meeting Minutes | 6/3/10 |
| Department of HealthCare Services | Suspension of Medi-Cal Benefits for Incarcerated Juveniles | 3/23/10 |
| Desert Vista Consulting | Integrated Behavioral Health Project Evaluation: An Assessment of the Field and IBHP's Contributions | 2/1/10 |
| Desert Vista Consulting | Integrated Policy Initiative: Behavioral Health Measurement Project Summary Findings | 1/1/11 |
| Desert Vista Consulting | Integrated Behavioral Health Program Case Studies Final Report | 3/1/10 |

| AUTHOR | TITLE | DATE |
|---|---|---|
| Fight Crime: Invest in Kids California | Using Mental Health Services Act / Proposition 63 Funding for Juvenile Justice Youth | Unknown |
| Fresno County Department of Mental Health | Mental Health Services Act Workforce Education and Training Component Three-Year Program and Expenditure Plan, Fiscal Years 2006-07, 2007-08, 2008-09 | 5/5/09 |
| Greater Bay Area Mental Health & Workforce Collaborative | MHSA Regional Partnership Implementation Progress Report | 11/1/10 |
| Health Affairs, Peter Long and Jonathan Gruber | Projecting The Impact Of The Affordable Care Act On California | 1/1/11 |
| Humboldt County Department of Health and Human Services, Mental Health Branch | Mental Health Services Act Workforce Education and Training Program and Expenditure Plan | 3/1/09 |
| Integrated Behavioral Health Project | California Primary Care, Mental Health, and Substance Use Services Integration Policy Initiative, Volume III: Examples for Dissemination | 9/14/09 |
| Integrated Behavioral Health Project | California Primary Care, Mental Health, and Substance Use Services Integration Policy Initiative, Volume II: Working Papers | 9/14/09 |
| Integrated Behavioral Health Project | California Primary Care, Mental Health, and Substance Use Services Integration Policy Initiative, Volume I: Report | 9/14/09 |
| Insure the Uninsured Project, Sara Watson and Alison Klurfeld | California's Mental Health System | 8/1/11 |
| Journal of General Internal Medicine | Assessing the Mental Health Needs and Barriers to Care Among a Diverse Sample of Asian American Older Adults | 2/15/11 |
| Judicial Council of California | Report to the Judicial Council | 3/22/11 |
| Justice Center: The Council of State Governments | Council of State Governments Justice Center Releases Estimates on the Prevalence of Adults with Serious Mental Illnesses in Jails | 6/1/09 |
| Kaiser Commission on Medicaid and the Uninsured | Medicaid Coverage and Spending in Health Reform: National and State-by-State Results for Adults at or Below133% FPL | 5/1/10 |
| Legislative Analyst's Office (LAO) | A State Policy Approach: Promoting Health Information Technology in California | 2/1/07 |
| Little Hoover Commission | Addressing Addiction: Improving & Integrating California's Substance Abuse Treatment System | 3/1/08 |
| Merced County Department of Mental Health | Mental Health Services Act Workforce Education and Training Component Three-Year Program and Expenditure Plan, Fiscal Years 2006-07, 2007-08, 2008-09 | 2/27/08 |

| AUTHOR | TITLE | DATE |
|---|---|---|
| Office of the National Coordinator for Health Information Technology | California Health Information Exchange Cooperative Agreement Program | 1/1/09 |
| Pacific Southwest Addiction Technology Transfer Center | CADPAAC'S 2007 Alcohol and Other Drug Abuse Treatment Workforce Survey | 11/1/08 |
| Psychiatric Services | Self-Reported Unmet Need for Mental Health Care After California's Parity Legislation | 9/1/10 |
| Psychiatric Services | The Effects of Program Realignment on Severely Mentally Ill Persons in California's Community-Based Mental Health System | 9/1/00 |
| Sacramento State College of Continuing Education Applied Research Services | Healthcare Workforce Development Regional Focus Groups and Follow-Up Survey: Final Report | 6/22/11 |
| San Diego County Department of Mental Health | Mental Health Services Act (MHSA) Workforce Education and Training Component Three-year Program and Expenditure Plan, Fiscal Years 2006-07, 2007-08, 2008-09 | 5/6/09 |
| Santa Clara County Mental Health Department | Mental Health Services Act Workforce Education and Training Component Proposed Program & Expenditure Plan FY 2009-10 | 6/29/09 |
| Solano County Health & Social Services | Mental Health Services Act Workforce Education and Training Plan | 11/7/08 |
| Solano County Health & Social Services, Mental Health Division | 2010 Cultural Competence Plan Requirements Criteria | 9/1/10 |
| State of California Department of Alcohol and Drug Programs | Cultural Competency Quality Improvement Strategic Plan | 11/1/10 |
| Superior Region Partnership | MHSA Regional Partnership Implementation Progress Report | 10/1/10 |
| The Coalition of Alcohol and Drug Associations (CADA) | Reclaiming Lives and Tax dollars: Urgent Policy Priorities for Reducing Substance and Associated Costs and Consequences | 1/1/11 |
| The Lewin Group | Frequent Users of Health Services Initiative: Final Evaluation Report | 8/1/08 |
| The Lewin Group | Evaluation of the CMSP Behavioral Health Pilot Project Final Report | 2/17/11 |
| The Lewin Group | Medi-Cal EHR Incentive Program: Landscape Assessment Summary Report | 1/1/09 |
| The Tides Center | Integrated Behavioral Health Project: Phase I Summative Report | 6/1/09 |
| Tulare County Department of Mental Health | Mental Health Services Act (MHSA) Workforce Education and Training Component Three-year Program and Expenditure Plan, Fiscal Years 2010-11, 2011-12, 2012-13 | 10/22/10 |
| University of California, Berkeley | Excess Non-Psychiatric Hospitalization Among Medi-Cal Beneficiaries with Serious Mental Illness in California | 2/7/08 |

| AUTHOR | TITLE | DATE |
|---|---|---|
| University of California, Berkeley's Petris Center | California on the Eve of Mental Health Reform: Baseline report on county mental health departments'structure, financing and expenditures, fiscal year 2003-04: One year prior to the Mental Health Services Act | 11/6/07 |
| University of California, Los Angeles Center for Health Policy | Mental Health Status and Use of Mental Health Services by California Adults | 7/1/10 |
| University of California, Los Angeles Integrated Substance Abuse Programs | Evaluation of the California Outcomes Measurement System (CalOMS) | 6/30/05 |
| University of California, Los Angeles Integrated Substance Abuse Programs | 2010 California County Substance Use Disorder (SUD)/Primary Care Integration Survey: Summary of Findings | Unknown |
| University of California, Los AngelesCenter for Health Policy Research | Adult Mental Health Needs in California: Findings from the 2007 California Health Interview Survey | 11/1/11 |
| University of California, Los Angeles Center for Health Policy Research | Californian's Newly Eligible for Medi-Cal under Health Care Reform | 5/1/11 |
| Unknown | Katie A. et al. v. Diana Botna et al. Settlement Agreement | 6/18/03 |
| Youth Law Center and The California Endowment | Improving Access to Medi-Cal for Youth in the Juvenile Justice System | 11/1/06 |

# III. MENTAL HEALTH AND SUBSTANCE USE PREVALENCE ESTIMATES

## A. MOTIVATION FOR THIS PORTION OF THE NEEDS ASSESSMENT

### 1. Relation to the 1115 Terms and Conditions

The California 1115 Bridge to Reform Waiver Special Terms and Conditions call for a detailed analysis of the State's behavioral health needs and gaps. To determine the gaps in a system, one must first develop an understanding of current needs; thus, the estimation of prevalence of mental health and substance use need served as an important first step in the Needs Assessment process. Determining the level of need among the population provides important context to assess how well the system is performing in meeting the need for services among the population. This chapter is of particular relevance as California prepares for the expansion of eligibility for the Medi-Cal program under national health reform: It provides a starting point for estimating the need for mental health and substance use services among beneficiaries.

### 2. Specific questions to be addressed in this chapter

This chapter addresses several important questions:

1. What is the estimated prevalence of mental illness among the population of California at both the state and county levels? This broader question led to more specific questions about the prevalence of mental illness among different age groups as well as the severity of mental illness. These questions included:
    a. What is the prevalence of serious emotional disturbance among youth?
    b. What is the prevalence of serious mental illness among adults?

2. What is the estimated prevalence of substance use among the population of California at both the state and county levels? How does the prevalence of mental illness and substance use disorders among Californians compare to that of other states?

As will be discussed in more detail below, within the analyses of the prevalence of mental illness and substance use, data is further broken out by demographic variables such as race and ethnicity, age, household income, marital status, and gender. Detailed information about prevalence for specific groups is an important component of any prevalence analysis. It can highlight particular subsets of the

population where need is greatest; thereby helping policymakers and system planners target interventions and prioritize the allocation of limited resources.[20]

### 3. Relationship to other sections of the Assessment and Plan

The estimates of the need for mental health and substance use serve as the foundation for all other analysis in this report. In particular, the prevalence estimates are the basis for estimating the need for mental health and substance use services among the expansion population as reported in Chapter VII of this report. The estimates are also used to calculate penetration rates as discussed in Chapter IV, thereby offering a better understanding about particular groups that are well served (or not) by the current mental health and substance use system.

Given that the vast majority of mental health and substance use services are delivered at the county level, information about prevalence is presented at both the state and county levels. This was done to offer county officials and service providers as much information as possible about the potential service demand within their county to assist them in their own planning efforts. It also helps to lay the groundwork for the simulation of changes in the mental health and substance use benefits designs that are a critical element of the forthcoming Service System Plan.

As described in the introduction to this report, the file containing both the statewide and county-level prevalence estimates for mental health and substance use disorders is provided separately (due to the sheer volume of data). This file can be downloaded by going to:
*http://www.dhcs.ca.gov/provgovpart/Pages/BehavioralHealthServicesAssessmentPlan.aspx*

## B. METHODOLOGY

In this report, we make use of demographic data from the U.S. Census and the California Department of Finance to describe the target populations for both the mental health and substance use estimates.

The base description for each area came from the year 2000 public use micro data samples released by the U.S. Census to describe public use micro data areas (PUMA). PUMAs have approximately 100,000 people as a minimum, but permit complete cross tabulation of the demographic variables used in the modeling and estimation. The PUMA data were adjusted to the counties through use of the SF3 (socioeconomic) marginals for the counties and further adjusted by the SF1 marginals, which are

[20] Grant, D., Padilla-Frausto, M., Streja, L., Aguilar-Gaxiola, S., & Caldwell, J. (2011). *Adult Mental Health in California: Findings from the 2007 California Health Interview Survey.* Los Angeles: UCLA Center for Health Policy Research.

primarily age/sex/race. This provided cross-tabulations for age by sex by race by ethnicity by marital status by education by poverty by residential status.

The basic demographic tables were first created for the year 2000, using the decennial census. However, updates are required to account for population changes between decades. Two series of updates are available. The first, created by the U.S. Census Bureau, is called estimates; this series provides updates for age categories, sex, and race/ethnicity is based on information like births, deaths, building permits, & school enrollment during the following year. The second, provided by the California Department of Finance, is based on projections from earlier years to future years based on expected growth. It provides age by sex by race/ethnicity for future years through growth models. These are used in this report's estimates. It must be noted that neither the estimates nor projections series provide new data on the other variables of interest such as marital status, education, poverty, or residential status. Therefore, those components of the full table are carried forward within the age by sex by race/ethnicity groups within the present report.

In 2010, the U.S. Census Bureau completed a new decennial census; however, the results were not yet available in a form we could use to update the present denominator tables, even for the variables in that Census. But it must be noted that the 2010 decennial census is essentially limited to basic demographics and no longer collects socioeconomic information such as education, income, and poverty. The socioeconomic data are not in the constitutional mandate for the census, which is to allocate the distribution of congressional districts by population. Instead, the socioeconomic information is now collected primarily in the annual American Community Survey (ACS) and reported by PUMAs rather than counties. Table 2 below describes the demographic variables used in the prevalence tables.

## Table 2. Details for demographic cells

| | |
|---|---|
| **Age** | Age is available in the census and the survey, and has been shown to be strongly related to the prevalence of mental disorders. We have divided age into ten categories: 0-5, 6-11, 12-17, 18-20, 21-24, 25-34, 35-44, 45-54, 55-64, 65+. |
| **Sex** | Sex is an important risk factor for psychiatric disorder and is available from the Census. |
| **Race and ethnicity** | For the current estimates we have implemented an expanded definition for Race/Ethnicity, which is based on the 2000 Census. This census iteration permits respondents to identify multiple race or ethnicity categories. This revised categorization includes 1) White, 2) African American, 3) Asian, 4) Pacific Islander, 5) Native American or Alaskan Native, 6) Other races, 7) Multiple races specified, 8) Hispanic. Although reported by the Census, we do not have sufficient mental health data corresponding to each of these categories and have used the closest group available. For example, the rates for Asians are still used for Pacific Islanders, although the numbers in that category can now be identified. |
| **Marital Status** | Marital status is defined in the Census for persons age 15 or older. It differentiates married, separated, widowed, divorced, and never married. To reduce the numbers of cells, we have combined separated, widowed, and divorced. This appears to work because the groups are largely differentiated by age. This variable is used in the adult tables only. |
| **Education** | For the present analyses we have trichotomized education into less than high school graduation, high school graduate through some college, and college graduate. These data are available for age 18 or older. |
| **Poverty** | Poverty status is divided into five categories: Below 100% of the federal poverty level, 100%-199%, 200%-299%, 300% +, and undefined. The undefined category includes mostly unrelated children (e.g. children in foster homes), institutions and most group quarters. |
| **Residential Setting** | The mental health and substance use surveys included only persons in residential households. We have maintained household residences, institutions, and group quarters as separate strata in the demographic matrix. Estimates for institutional and group quarters were based on the corresponding residential rates with adjustments for the proportions of that county falling into the various residential categories provided by the Census. For example the 2000 Census reported total numbers within a county in hospitals, mental hospitals, prisons, juvenile justice, nursing homes, college dorms, military housing and homeless shelters, but did not differentiate them by demographic variables other than age and sex. Adjustment rates for these categories were merged into weighted averages for institutional and for other group quarters within age and sex and were applied relative to the corresponding residential rate. |

## 1. Estimation of need for services

The estimation of need for mental health and substance use services requires a definition of need, a source of data about that need, and a statistical method to complete the estimates. Historically, need was a projection based on utilization of services, but that approach is somewhat circular in that it does not allow for unmet need without assuming parity among groups. A monograph edited by Goldsmith and colleagues (1988), entitled Needs Assessment: Its Future,[21] makes the distinction between direct and indirect needs assessment. Direct assessment presumes that data about need are collected in the place for which estimates are required. Ideally, this would be a survey with appropriate assessments. Unfortunately there are few prevalence surveys of states and counties and even fewer with adequate diagnostic

[21] Rockville, Md.: U.S. Dept. of Health and Human Services, Public Health Service, Alcohol, Drug Use, and Mental Health Administration, National Institute of Mental Health, Division of Biometry and Applied Sciences, 1988

instruments; thus, we cannot provide direct estimates of need for all populations of interest (see exception below for Adults with Mental Health Needs). Therefore, we consider the estimation approach termed "indirect estimation" within the Goldsmith monograph. The task for indirect estimation is to make use of the information known about need from one source, such as the National Co-morbidity Survey (NCS) sample, and to project it on to other populations, such as a state, county or city. Such estimates can also be made for smaller geographic areas. The methods for making those projections are presented below.

It should be noted here that in November 2011, the UCLA Center for Health Policy Research released a report on adult mental health need in California, based on the results of the 2007 California Health Interview Survey (CHIS).[22] This report also details estimates of the prevalence of mental health need among Californians. The methodology and analysis used in the UCLA report and this report differ; however, both offer valuable information. First, the UCLA report uses a direct estimation approach, as opposed to the indirect method used here. As mentioned earlier, the UCLA prevalence estimates are based on the results of the CHIS. The CHIS is designed specifically for use in California and respondents are from households in the state. In contrast, the indirect estimation approach (described below) uses the results of a national survey and applies them to California. The two reports also use different definitions of mental health need: The UCLA report defines need as, "…those with serious psychological distress **and** at least a moderate level of impairment in one or more life domains," whereas this report provides estimates of the prevalence of serious mental illness (SMI) as well as prevalence based on a broader definition that includes those with SMI and those with less severe conditions (see the discussion later in this chapter for a detailed explanation of the definition of need). Prevalence estimates do not distinguish among people that ***will ask*** for services versus those that ***will not ask*** for services. The UCLA estimates include people that have both symptoms of mental illness and experience discomfort or disruption from these symptoms. It is reasonable to assume that the mental health need cohort defined by the UCLA report is more likely to both need and ask for mental health services.

The UCLA report has many strengths and should be reviewed alongside this report; however, this report contains additional information that is pertinent to the overall Needs Assessment and subsequent planning process. For example, the UCLA report focuses solely on mental health need and does not offer information about the prevalence of substance use need among the population. In addition, the UCLA report provides statewide and regional information while this report offers statewide as well as county-level prevalence estimates; given that most mental health and substance use services in California are delivered at the county level, estimates of prevalence at the county level are particularly useful for

[22] Grant, D., Padilla-Frausto, M., Streja, L., Aguilar-Gaxiola, S., Caldwell, J. (2011). *Adult Mental Health in California: Findings from the 2007 California Health Interview Survey.* Los Angeles: UCLA Center for Health Policy Research.

locality-specific planning efforts. Lastly, the UCLA report is limited to adults whereas this report includes prevalence estimates for youth under the age of 18.

## 2. Indirect estimation

An estimation method is considered indirect if it estimates need without making an adequate number of direct assessments (i.e., interviews) in the target population. Two situations arise. In the first, estimates of need are made when there are no direct assessments from which to work, so variables such as risk factors, socioeconomic status, and related social problems are used to make an estimate. For example, one might project that mental health services are needed in areas with high crime, poverty, divorce, teenage pregnancy, and child abuse. That approach, called the social indicators approach, is not employed in this report. The second indirect estimation method is one in which a direct estimate is available for one population but must be applied to another. That approach is our present focus. A more complete description of this approach is included in the section below.

The basic assumption underlying indirect needs assessment is that demographic characteristics have a consistent general relationship to mental health or substance use disorders throughout the U.S. That is to say, persons with particular demographic characteristics are more likely than others to need mental health or substance use services, regardless of where they live. Thus, through use of indirect standardization one should be able to apply average estimates of need for persons of a particular type to other people of that type. This approach assumes that demographic variation is more important than geographic variation. By making estimates for specific demographic subgroups and then summing the estimates across all demographic subgroups, an overall estimate of the number of people in need of mental health services can be calculated.

Figure 2 illustrates the concept of indirect estimation in general.

### Figure 2. Illustration of extrapolation paradigm

| **1. Determine relationships in survey data and develop a model** | | |
|---|---|---|
| **Socio-demographic characteristics (age, sex, race, marital status, education, poverty, residence type)** | Empirical relationships ==========> | Assessed need for services, Direct Estimation |
| **2. Apply relationship locally using the model** | | |
| **Socio-demographic characteristics (age, sex, race, marital status, education, poverty, residence type)** | Assumed relationships ===========> | Estimated need for services, Indirect Estimation |

While the basic idea is a simple one, the actual procedures for indirect estimation are somewhat complex. The remainder of this section provides an outline and some details for the various steps involved in this technique. Note that the procedures for estimates deal with the populations covered by the specific survey, but methods are also necessary to generate estimates for populations not covered in the original prevalence survey. These include procedures for children (e.g., below age 18), elderly, persons age 55 and older, and institutional populations such as prisons, hospitals, college dorms, and even military housing.

## 3. Mental health prevalence rate methodology

The estimates we have produced for serious emotional disturbance (SED) among children (below age 18) are based primarily on poverty levels. No national surveys comparable to those used for the adult estimates cover the full age range necessary for our purposes. The estimation strategy relates to the state-level methodology reported in the Federal Register, but is modified based on the poverty level of children within county or state.[23]

The estimates for adults are synthetic estimates from the Collaborative Psychiatric Epidemiology Surveys (CPES). The CPES combines data from three national surveys: The National Co-morbidity Survey Replication (NCS-R), the National Survey of American Life (NSAL) and the National Latino and Asian American Study (NLAAS). These surveys were designed to use a common core psychiatric diagnostic instrument, the Composite International Diagnostic Instrument (CIDI) sponsored and published by the World Health Organization. The data from the three surveys are weighted to provide appropriate representation for the U.S. The diagnoses and related impairment data are combined to create summary levels of need for mental health services – the mental health needs (MHN) definitions. The definition for the MHN categories consists of groupings of DSM-IV diagnoses and the level of impairment or disability. Impairment is measured by the Sheehan Disability Scale,[24] which ascertains the extent to which a mental disorder interferes with home management (like cleaning, shopping and taking care of the house), a person's ability to work, a person's ability to form or maintain close relationships with other people, and with a person's social life. This self-rating scale ranges from zero to ten (0-10), with a rating of seven (7) corresponding to severe impairment. It was scored by taking the average of the four areas assessed. In a second measure of disability, respondents were asked to report the number of days in the last year in which their activities were limited due to the disorder. Either the Sheehan or the disability days could satisfy the impairment for the MHN definition.

[23] Federal Register: October 6, 1997, Volume 62, Number 193 (fr06oc97-78)
[24] http://www.cqaimh.org/pdf/tool_lof_sds.pdf

The model provides prevalence estimates by age, sex, race, marital status, education, poverty and residential setting. The logistic regression models used for the present estimates were created using SAS Procedure CATMOD. Each dependent variable was inverted to estimate need. Independent variables were modified to have adequate numbers in the anchor category for each variable. The age group index was used as a direct effect and a centered then squared version of the age was entered to account for higher rates in the middle age categories and lower rates for younger and older respondents. The algorithms were applied to each of the cells in the full demographic matrix, except for children under 18 and for non-residential status as noted above.

The tables presented in this report use two definitions of mental illness for adults. The first is a relatively narrow definition of severity that is similar to commonly used definitions of severe mental illness for adults. The numbers are calculated using the criteria listed under the column labeled MHN2 on Table 1 in Appendix A of the prevalence report which can be located online at *http://www.dhcs.ca.gov/provgovpart/Pages/BehavioralHealthServicesAssessmentPlan.aspx*. The second set of estimates (MHN4) uses expanded inclusion criteria and produces estimates that include individuals from the first level as well as those with less severe conditions in terms of disability level and disability days. Table 3 details the columns used in the prevalence tables.

### Table 3. Columns for prevalence

| | |
|---|---|
| **Total Population** | Total population includes individuals living in households, institutions, and other group quarters. |
| **Household Population** | Household population is comprised of individuals living in households only. |
| **Households Below 200% Poverty** | Households in this column are comprised of individuals living in households at or below 200% of the federal poverty level. |
| **Cases** | The number of cases is equivalent to the number of people who meet the demographic and mental health diagnosis criteria. |
| **Population** | The population column represents the number of individuals living in the area who meet the demographic criteria. |
| **Percent** | Percent represents the percentage of individuals within the area who meet the demographic and mental health diagnosis criteria. |

## 4. Limitations

For the adult estimates, the CPES did not assess schizophrenia or other psychotic disorders, and thus limits the prevalence estimates to the disorders shown in Table 1 in Appendix A of the prevalence

report.[25] The NLAAS, which focuses on Hispanics and Asian Americans, did not inquire about mania or specific phobias. We have used statistical models to adjust for these omissions.

Due to the fact that the rates presented here are based on census data that only use particular categories, important demographical groups such as same sex partnerships, certain race/ethnicity categories, etc., may not be adequately represented.

## 5. Substance use prevalence rates

The overall CPES focused on adults, though a supplement did address adolescents. A much larger survey focusing on substance use and use is the National Survey of Drug Use and Health (NSDUH) sponsored annually by the Substance Use and Mental Health Services Administration (SAMHSA). To make substance use prevalence estimates for California and counties, we have used the 2009 data from the NSDUH. The overall sample included 55,772 people age 12 and older surveyed through computer-aided interviews. Most interviews were face-to-face, but alternatives were used to maximize response. The SAMHSA data archive at the University of Michigan provides details of the methods along with the public use version of the data set. Because of the timeline of this project, we have used the public use version of the data, which do not provide local geographic identifiers to the state or county level. Thus the strategy has been to link the demographic characteristics between the NSDUH survey and the demographics for California counties to produce synthetic estimates in a manner parallel to the CPES estimates for adult mental health. We have not made substance use estimates for younger children where prevalence rates are smaller but still of concern.

Because the demographic coding in the NSDUH had some differences from our denominators for California, we used modest adjustments in applying the risk models from NSDUH to the demographic categories. The age categories for NSDUH for ages 35-64 spanned 15 years rather than 10-year increments. Also poverty had cuts at 100% and 200% but not 300%. We estimated rates for 300% or higher using the income category of greater than $75,000. For the dependent variables from the NSDUH, we selected alcohol use and dependence, and summarized use of cocaine, heroin, sedatives, stimulants, hallucinogen, inhalant, tranquilizers, marijuana, and painkillers. Although we distinguished use from dependence in the summaries, it was possible for a respondent to report use of one drug and dependence on another. The use and dependence summaries are not mutually exclusive as they would be for a single drug. For the present report we have not included the 'any use' variables, the serious psychological distress or the Kessler K6 indicators.

[25] Table 1 in Appendix A of the prevalence report can be located online at: *http://www.dhcs.ca.gov/provgovpart/Pages/BehavioralHealthServicesAssessmentPlan.aspx*.

For each of the dependent drug use summaries, we constructed logistic regression models using SAS PROC CATMOD. The present models use each demographic in the model as a categorical main effect, with categories reversed to insure a large enough anchor category. The dependent variable coded with no disorder was used as the denominator. The exception to this coding was that age (category) was entered as a direct rather than categorical effect and a centered squared version of age was included to permit higher prevalence in young adults and lower prevalence for older or younger respondents. The models were used to generate risk levels for each of the county demographic cells and summaries of those risks were presented in the summary tables. This is parallel to the methods for the CPES. There is no specific parameter in the models for residential type as institution or group quarters. Adjustment factors were created "from the literature" as adjustments for prisons, nursing homes, military, or college dorms. Those were averaged based on the residential status mix and applied as an average inflator for people in institutional or group quarters in a particular county. The relationship of such inflators for mental health versus substance use is subject to review and revision.

The summary tables for NSDUH-based estimates parallel those for the mental health CPES tables.

## C. ESTIMATES OF THE NEED IN CALIFORNIA

### 1. Mental health statewide estimates

Tables 2 through 6 located in Appendix A, Section I of the prevalence report available online,[26] present statewide estimates for the prevalence of mental illness in California. Table 2 displays prevalence rates for children ages 0-17 with serious emotional disturbances. For youth, the prevalence rate is 7.56% (n=714,431). Prevalence is split fairly evenly across age and gender categories. Hispanic youth have a slightly higher estimated prevalence rate of 8.03% as compared with 6.85% for white youth (non-Hispanic). African American and Native American youth also have a slightly higher prevalence rate of 7.99% and 7.91%, respectively. Predictably, prevalence varies with income level with higher levels among youth from the lower income categories.

Table 3 in the prevalence report displays prevalence figures for adults with the more narrow definition of severe mental illness. The narrow definition of severe mental illness for adults yields a total of 1,178,513 individuals statewide, 4.28% of the adult population. Prevalence among adults increases with age between the ages of 18-20 and 35-44, ranging from 1.98% of the population for individuals ages 18-20 to 6.23% of the population among individuals ages 35-44. Rates are higher among females (4.94% for females vs.

[26] The tables in the Appendices referred to here can be located at: *http://www.dhcs.ca.gov/provgovpart/Pages/BehavioralHealthServicesAssessmentPlan.aspx*

3.62% for males), Native Americans (7.02%), and individuals who are separated, widowed or divorced (6.93%). Prevalence tends to decrease as education level increases and as income increases.

Table 4 in the prevalence report contains an expanded definition of severe mental illness for adults using an extended array of diagnoses and yields a total of 4,361,574 individuals (15.85%). The distribution across demographic categories follows a similar pattern to the one described above.

## 2. Mental health statewide estimates compared with other states[27]

Tables 5 and 6, found in Appendix A, Section I of the prevalence report,[28] display prevalence estimates across all states and the District of Columbia for youth with severe emotional disturbance and adults with severe mental illness. In these tables, states are ordered from lowest to highest rate.

State prevalence data for youth are displayed in Table 5. Prevalence rates for states range from a low of 6.91% in New Hampshire to a high of 7.93% in Mississippi. California, with a prevalence rate of 7.44% for children ages 0-17, falls approximately in the middle of the distribution with a rank of 28.

Table 6 shows similar data for adults with serious mental illness. State prevalence rates range from a low of 3.26% in Hawaii to a high of 5.79% in Mississippi. Unlike with the children's estimate, California (4.28%) falls close to the lower end of the distribution for adults with SMI, coming in with the ninth lowest rate in the country.

## 3. Mental health county estimates

Tables 7 and 8, located in Appendix A, Section I of the prevalence report[29], display prevalence rates for each California County, for both adult severity categories. Table 7, which includes data for the more restricted definition of severe mental illness, displays a range across counties from a low of 3.82% in San Mateo County to a high of 8.69% in Lassen County.

Breakdowns of county-level prevalence estimates for both levels of severity, by demographic categories, are contained in Appendix A, Section II of the prevalence report.

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[27] For substance use we were not able to find comparable state data that matched the demographic data for the California estimates presented in this report.

[28] The appendix for the prevalence estimates is available at *http://www.dhcs.ca.gov/provgovpart/Pages/BehavioralHealthServicesAssessmentPlan.aspx*

[29] The prevalence data Appendix is available at *http://www.dhcs.ca.gov/provgovpart/Pages/BehavioralHealthServicesAssessmentPlan.aspx*

### 4. Substance use statewide

Tables 1 through 7 located in Appendix B, Section I of the prevalence report[30], present statewide estimates for the prevalence of substance use disorders in California. Table 1 summarizes the prevalence rates of alcohol or drug diagnosis for both youth (ages 0-17) and adult (ages 18+) populations. For youth, the estimated prevalence rate of an alcohol or drug diagnosis is 2.7% (n=270,604). The estimated prevalence rate among male youth is almost two times higher than among female youth (3.6% and 1.75%, respectively). With the exception of Native American youth, who have a slightly higher prevalence rate of 6.63%, the prevalence is split fairly evenly across both ethnicity and poverty level categories.

Among the total adult population, the estimated prevalence rate of an alcohol or drug diagnosis is 8.76% (n=30,051,444). Prevalence rates tend to decline with age, ranging from 17.49% of the population for individuals between the ages of 21-24 to 1.8% of the population for individuals ages 65 and older. Rates are higher among males (11.98% for males vs. 5.71% for females), Native Americans (15.55%), and individuals who are single (16.27%). Prevalence is lower among college graduates (7.18%) compared to both high school and non-high school graduates (9.39% and 9.12%, respectively).
Tables 2 through 7 display prevalence estimates of other substance use categories (i.e., alcohol diagnosis, drug diagnosis, drug dependence, etc.), and have a similar distribution across demographic categories to the one described above.

### 5. Substance use county estimates

Tables 8 through 14 located in Appendix B, Section I, present prevalence estimates of substance use by county. Table 8, which includes data for those with an alcohol or drug diagnosis, displays a range across counties from a low of 6.49% in Alameda County to a high of 13.85% in Lassen County.

Breakdowns of county-level prevalence estimates for alcohol or drug diagnosis by demographic categories are contained in Appendix B, Section II.

## D. CONCLUSION

The information presented above lays the foundation for subsequent chapters that estimate the expansion population as well as the penetration rate information discussed in Chapter IV. It also helps lay the groundwork for the simulation of changes in the mental health and substance use benefits designs that are a critical element of the forthcoming Service System Plan.

[30] Ibid.

The estimates presented here detail information about the prevalence of both mental health and substance use disorders at the county level, providing county officials with useful information about the potential service demand in their locality to assist them in their own planning efforts. It also helps clarify particular subsets of their populations where need is greatest and can be used to help determine how best to tailor strategies and interventions to meet the needs of these groups.

The next chapters use the prevalence estimates generated here as the basis for the calculation of the penetration rates for Medi-Cal, DMH, and DADP. TAC/HSRI elected to use as the basis for the calculations the estimated prevalence of those with serious mental illness, serious emotional disturbance, or a substance use disorder among the larger population of California as opposed to using the number of Medi-Cal beneficiaries. This was done because we were interested in seeing how much of the estimated need for mental health and substance use services was being addressed through services delivered by the three public entities that are charged with serving eligible individuals with SMI or SED.

Of course, this approach will cause the penetration rates for these programs to appear low for several reasons. First, not all individuals included in the larger population of people with SMI or SED are Medi-Cal beneficiaries. Second, some of the individuals in this larger population may be receiving mental health or substance use treatment services that are delivered or paid by other sources such as commercial insurance carriers, faith-based organizations, or other sources, and are thereby having their needs addressed by those sources.

While using the number of Medi-Cal beneficiaries as the basis for determining the Medi-Cal penetration rate calculations would have provided some basic information about how many beneficiaries with SMI, SED, and/or a substance use disorder received treatment services from Medi-Cal; it does not indicate how well the system was doing at serving the sub-population of beneficiaries with a SMI, SED, or a substance use disorder who may have a need but have not asked for mental health or substance use treatment services.

# IV. ANALYSIS OF MEDI-CAL DATA FOR MENTAL HEALTH AND SUBSTANCE USE SERVICES

## A. MOTIVATION FOR THIS PORTION OF THE NEEDS ASSESSMENT

### 1. Relation to the 1115 Terms and Conditions

The California 1115 Bridge to Reform Waiver Special Terms and Conditions call for a detailed analysis of behavioral health needs and gaps in California, followed by a Services System Plan. This chapter provides comprehensive and detailed information about California's current Medi-Cal services for people receiving specialty mental health and substance use services, and also for people receiving behavioral health services under the physical health and fee-for-services components of Medi-Cal. These data are the foundation on which future planning for the Medi-Cal behavioral health system can be built. For example, the previous chapter provided information on global needs for behavioral health services. The information in this chapter is used to calculate the degree to which the Medi-Cal program is meeting the need for services. In addition, the data on service utilization and costs, plus the data on performance indicators, assist to identify priority areas for planning the behavioral health system in concert with ACA implementation.

### 2. Specific questions to be addressed in this chapter

Medi-Cal enrollment, claims, and encounter data supplied by the Department of Health Care Services (DHCS) permits analysis of a number of key questions related to Medi-Cal behavioral health services in California. These questions include:

1. What are the enrollment and penetration rates in behavioral health services for Medi-Cal participants?
2. What behavioral health services do Medi-Cal participants access and utilize?
3. What are the overall expenditures for behavioral health services in Medi-Cal?
4. Who are the high utilizers of Medi-Cal behavioral health services and what are the associated expenditures?
5. To what degree do Medi-Cal beneficiaries access behavioral health interventions in hospital emergency departments?
6. What is the current performance of the system as measured by HEDIS indicators (time from hospital discharge to follow-up outpatient appointment, and hospital and emergency department readmission rates)?

7. In what ways do the above variables vary by age, ethnicity, eligibility category, diagnostic category and participation in specialty versus non-specialty plan services?

### 3. Relationship to other sections of the Assessment and Plan

As noted above, the presentation and analysis of Medi-Cal behavioral health data is an essential element of both the behavioral health Needs Assessment and the development of the Service System Plan. While this data provides core information for analysis and planning, it does not provide a holistic picture of the behavioral health system in California. This is why TAC/HSRI also analyzed data from the Department of Alcohol and Drug Programs (DADP) and the Department of Mental Health (DMH). Many behavioral health service participants receive services from both Medi-Cal and the non-Medi-Cal systems. In addition, the Medi-Cal expansion population after 2014, particularly those with substance use services needs, is not represented in the Medi-Cal data at this time.

Many of the other elements of this behavioral health services needs assessment depend on the Medi-Cal data presented in this chapter. For example, the provider capacity and workforce development analysis uses Medi-Cal provider data for several components in Chapter IX. In addition, the Medi-Cal expansion population chapter uses Medi-Cal data as a basis for estimating the characteristics and possible services utilization patterns of the expansion population.

Finally, many of the other chapters of this report provide additional quantitative and qualitative information that enriches the analysis of Medi-Cal behavioral health services data. For example, TAC/HSRI relied on other sources of information for the analysis of health integration and health information technology. This information is vital to the behavioral health needs assessment and plan, but is not available in the Medi-Cal claims, encounter and enrollment data.

## B. METHODOLOGY

This section describes the methodology used to analyze Medi-Cal claims data provided by the DHCS for fiscal years 2007-2010. To ascertain the current state of behavioral health service utilization in California, it was determined that access to Medi-Cal claims level data was critical. This data would help the TAC/HSRI team determine current need for behavioral health services, evaluate the extent to which estimated need was met through penetration rates, and – through additional statistical analysis – provide a deeper understanding of how services are currently being delivered and how this pattern of service utilization may impact the expansion population to serve the complex needs of Medi-Cal clients with behavioral health issues.

TAC/HSRI requested from DHS claims and encounter data for all persons who had received a behavioral health service or who had a behavioral health diagnosis. The requested Medi-Cal data set was populated by clients with specific diagnosis codes (ICD9 Codes) and with a primary diagnosis identifying a behavioral health disorder such as schizophrenia, depressive conditions, disorders of conduct, and substance use from SAMHSA's diagnostic categories for substance use or dependence. To capture individuals using behavioral health services that were not given a primary diagnosis (or was missing) of mental health or substance use, we included a number of procedure codes (e.g., individual therapy) that would take account of as many users of these services as possible. A detailed description of the methodology can be found in Appendix A.

One of the challenges of using this data was determining reliable information on race and ethnicity. Race and ethnicity statistics are notoriously unreliable in administrative billing systems. Relatively high proportions of the Medi-Cal participants in each cohort of the Medi-Cal data were missing sufficient information in their enrollment and claims data to assign them to a subpopulation with confidence. Therefore, we caution the reader to take this methodological note into consideration when interpreting any data reported on race/ethnicity categories. One other challenge was that data limitations prevented cross-agency linkages that would allow for an unduplicated count of individuals who received services from two or more of the three state agencies.

## C. CURRENT MEDI-CAL BEHAVIORAL HEALTH TREATMENT SYSTEM DESCRIPTION

This section of the report provides a description of Medi-Cal funded behavioral health services in the state of California for fiscal years 2007-2009. Data presentation and discussion focuses on: (a) penetration rates including comparison with DMH and DADP where applicable; (b) enrollment patterns; (c) Medi-Cal behavioral health expenditures; and (d) system performance related to certain measures including readmission rates and follow-up appointments.

## D. BEHAVIORAL HEALTH SERVICES PENETRATION RATES (MEDI-CAL, DMH AND DADP)

This section describes the penetration rates for the various components of California's behavioral health systems. Penetration rates represent the proportion of a defined population that is enrolled or engaged by some entity. In this case the population is all persons in California with a mental illness, serious emotional disturbance (SED) or substance use disorder (SUD) and the entity is one or more of the three agencies, Medi-Cal, DMH, and DADP. Thus, penetration rates are a combination of prevalence rates (the proportion of a population that has a particular disease or condition) and utilization (the number of people

with that condition using services provided or funded by a particular organization). There are of course, individuals with a mental illness, SED, or SUD who are not being served by Medi-Cal, DMH, or DADP, but are receiving treatment services paid for or provided by some other entity, such as a commercial insurance provider or a faith-based organization; these individuals are not included in the penetration rate data presented here.

Penetration rates provide important information about a service delivery system. Most importantly, they provide a gross measure of unmet need and the overall responsiveness of the treatment system. Very low penetration rates indicate the likelihood of problems with access, resource allocation, or other aspects of service delivery that may require further investigation and intervention.

Penetration rates become even more informative when they are considered for sub-populations. If, for example, penetration rates are lower for certain racial or ethnic groups, this may be a sign of disparities in behavioral health treatment. If rates are lower for certain geographical regions, this suggests the possibility of access problems. This information allows the responsible parties to effectively target planning or quality improvement activities.

## 1. Measure definition

To estimate the penetration rate, the numerator is the unduplicated number of individuals receiving services in the year. This number, representing everyone who received one or more units of service in the year, is provided by the three agencies. The denominator is the estimated number of individuals in California that meet the criteria for four defined categories for behavioral health disorders: adults with serious mental illness (SMI); adults with mental illness as defined more broadly by additional diagnostic criteria, inclusive of the SMI group (MI); children with serious emotional disturbance (SED); and adults with a substance use disorder (SUD).

## 2. Penetration rates by agency and diagnostic category

Table 4 presents prevalence rates for each of the four behavioral health categories (column 1), followed by the penetration rates for the categories by each of the three state agencies.

Thus, for example, in the “Total” row, representing the four diagnostic groups combined, the first two columns of figures represent the number of people estimated to have this condition in the total population of the State and the percent of the total population (i.e., 7,979,978, 22%). The columns to the right, indicating agency penetration, identify the proportion of the estimated behavioral health population that actually receives services from Medi-Cal, ADP and DMH, which serve 7%, 1% and 7% respectively of

the estimated population in one of the four diagnostic categories. Blank cells indicate that the agency does not provide services to this category of persons (DMH, for example, is restricted to serving only those who meet the State's criteria for serious mental illness).

One important qualification is that data limitations prevented cross-agency linkages that would allow for an unduplicated count of individuals who received services from two or more of the three state agencies. Accordingly, penetration rates calculated for the three agencies will represent an over-count (if you attempted to add rates across agency) as the actual unduplicated number of individuals who received services will be smaller than the number served by multiple agencies, and therefore actual penetration rates will be lower than stated.

Two features of this table are noteworthy. The first, of course, is the lack of any agency-funded services for a large proportion of the population of persons with behavioral health disorders. For the SMI population, Medi-Cal and DMH provide any service for only 22% and 35%, respectively, of that population; since some proportion of that represents individuals receiving services from both agencies, the penetration rate for the agencies combined is less than 57%. The remainder of people presumably receives services elsewhere (such as faith-based organizations) or not all. The proportion of the remaining three diagnostic groups that receive agency services is even smaller than for the SMI group. To determine how much may be attributed to being served elsewhere versus not receiving services at all (i.e., unmet need) would require data that is not available; for example TAC/HSRI did not have access to data from commercial insurance carriers. That is, with complete utilization data, the measure of unmet need would have (at least) three categories: those receiving services from one of the three public agencies, those receiving services elsewhere, and those receiving no services at all. Even with the likelihood that some people receive services directly from (e.g. faith based or philanthropic organizations) or paid by other sources (e.g. commercial insurance, private pay, etc.) the extent of unmet need is likely to be considerable. In the case of persons with SMI especially, very few people in this category receive services in the private sector. Moreover, these numbers say nothing about the *amount* of service received, which may be as little as one unit per year according to the methodology employed.

With regard to the other three diagnostic categories, the potential unmet need is even greater. Particularly striking is the category of persons with alcohol or drug diagnoses, constituting more than one-third of the total behavioral health disorder population. Medi-Cal reaches only 3% and ADP 6% (which may include some duplication).

Of course, these numbers say nothing about *why* so many do not receive services. The possible reasons are numerous including that some persons did not seek treatment, problems with access, insufficient

resources, dissatisfaction with the quality of services available, and choice to seek services offered through philanthropic or faith based funding, all of which are issues that are beyond the scope of this Needs Assessment.

The second noteworthy feature of this table is that, while the number of people receiving behavioral services overall is nearly equal for Medi-Cal and DMH (564,480 and 635,942 respectively), this relationship is not true across the diagnostic sub-groups. The proportion of the SMI category (adults) who receive DMH services is greater than that of persons who receive services funded by Medi-Cal (35% versus 22%). This difference is even greater for SED (children), with 32% receiving services funded by DMH versus Medi-Cal funding for 14%. (DMH does not serve the categories of mental illness broadly defined or alcohol/drug at all). This finding is expected given that DMH provides services specifically for persons with SMI and youth with SED.

### Table 4. State-wide prevalence of behavioral health disorders and agency penetration rates

| Characteristics | Prevalence of MI/SUD in State | | Medi-Cal Penetration | | DADP Penetration | | DMH Penetration | |
|---|---|---|---|---|---|---|---|---|
| | N | % | N | % | N | % | N | % |
| **Total** | 7,979,978 | 22% | 564,480[31] | 7% | 162,811 | 2% | 635,942 | 8% |
| **SMI** | 1,178,513 | 4% | 255,603 | 22% | -- | -- | 407,672 | 35% |
| **Mental Illness – Adult Broad** | 3,183,061 | 12% | 62,679 | 2% | -- | -- | -- | -- |
| **SED** | 714,430 | 8% | 99,660 | 14% | -- | -- | 228,109 | 32% |
| **Alcohol or Drug Diagnosis** | 2,903,974 | 7% | 99,408 | 3% | 162,811 | 6% | -- | -- |

*Note: Based on population of 37,077,204*

## 3. Penetration rates by diagnostic category and demographic characteristics

The importance of analyzing penetration rates by various subcategories is that it provides information about potential disparities in the number of people in these groups receiving services. The following describes demographic characteristics of persons receiving behavioral health services from the three agencies, taking each diagnostic category in turn.

**SMI**: In Table 5, the prevalence columns provide estimated State prevalence rates for persons with SMI, broken out by age group and gender. For example, the number of persons ages 18-20 with SMI is estimated to be 31,870, or approximately 2% of the total California population of persons in this age group (around 1,593,500).

[31] The numbers below do not add to 564,480 because we did not include a category of "Other behavioral health for youth" as there were no comparable prevalence estimates for this population.

Thus, it may be seen that prevalence rates for SMI peak in early middle age (25-44) at about 6% of that age group. To the right of the prevalence columns are the penetration rates by each of the three agencies for these categories (where this information is available). For example, for the group just cited, the estimated number of people ages 18-20 with SMI, 44% of this group received services funded by Medi-Cal. Optimally, the penetration percentage would be equal for all demographic categories, e.g. all age groups, all racial groups, etc. Variability across categories could indicate the possibility of disparities, (though it could also reflect other factors including member choice to seek care outside of this system.) Medi-Cal penetration varies significantly by age group with a higher proportion of the younger and older ends of the age spectrum of persons with SMI receiving Medi-Cal services. For most age groups, DMH's penetration rates are nearly twice that of Medi-Cal, except for older adults, where they are approximately equal.

It should be noted, however, that in the absence of additional utilization data, this variability across age groups does not necessarily indicate the presence of disparities based on age. For example, it is possible that DMH or other philanthropic funding attributes to the difference for the age groups with smaller proportions of people receiving Medi-Cal funded services (e.g., age 25-44, only 12-15% of whom receive Medi-Cal funded services.)

With regard to gender, DMH indicates a slight imbalance with a difference of 8% in the proportion of estimated population served. This is consistent with national figures for SMHA systems, in which there tends to be a higher ratio of males to females. The ratio for Medi-Cal, however, is about equal (21% versus 22%). Rates for racial and ethnic groups, though important for policy purposes, are not reported, as the data are not reliable and could be misleading.

### Table 5. Prevalence and penetration rates for mental health and SUD services for SMI 2009

| Characteristics | Mental Health or SUD Prevalence | | Medi-Cal Utilization | | DMH Utilization | |
|---|---|---|---|---|---|---|
| | N | %[1] | N | %[2] | N | %[1] |
| **Total** | 1,178,513 | 4% | 255,603 | 22% | 407,672 | 35% |
| **Age** | | | | | | |
| **18-20** | 31,870 | 2% | 14,139 | 44% | 29,780 | 93% |
| **21-24** | 94,321 | 4% | 11,708 | 12% | 34,146 | 36% |
| **25-34** | 305,097 | 6% | 37,727 | 12% | 83,937 | 28% |
| **35-44** | 324,956 | 6% | 47,630 | 15% | 88,649 | 27% |
| **45-54** | 246,083 | 5% | 67,516 | 27% | 97,807 | 40% |
| **55-64** | 108,748 | 3% | 52,510 | 48% | 54,402 | 50% |
| **65+** | 67,438 | 2% | 24,364 | 36% | 18,951 | 28% |
| **Gender** | | | | | | |
| **Male** | 494,204 | 4% | 102,454 | 21% | 192,193 | 39% |
| **Female** | 684,308 | 5% | 153,149 | 22% | 214,544 | 31% |
| **Race/Ethnicity** | | | | | | |
| **White-NH** | 526,102 | -- | 91,889 | -- | 134,079 | -- |
| **African American-NH** | 98,255 | -- | 30,075 | -- | 37,966 | -- |
| **Asian-NH** | 62,347 | -- | 3,959 | -- | 22,025 | -- |
| **Pacific Islander-NH** | 2,167 | -- | 9,578 | -- | 1,443 | -- |
| **Native-NH** | 10,578 | -- | 1,403 | -- | 3,966 | -- |
| **Other[6]** | 26,440 | -- | 77,931 | -- | 58,853 | -- |
| **Hispanic** | 452,625 | -- | 38,430 | -- | 63,322 | -- |
| **Unknown/not reported** | -- | -- | 2,324 | -- | -- | -- |

## 4. Mental illness-broad definition

The population estimated according to the broader definition of mental illness, constituting an estimated 12% of the overall population, lies outside the defined target populations of all the agencies except Medi-Cal. Utilization rates for this population indicate that this group is being very minimally served, with an unmet need of 98% (2% penetration rate).[32] This difference from the rate for SMI is to be expected given that for the latter, there is an agency specifically designated to serve them. Also, the broad definition of mental illness likely includes more disorders such as depression and anxiety, which are commonly under-diagnosed and undertreated.

[32] The penetration rate is based on the number of individuals meeting the broad definition of mental illness among the population of California not among Medi-Cal beneficiaries. In other words, the Medi-Cal program addresses 2% of the estimated need of those people meeting the broad definition of mental illness in California.

### Table 6. Prevalence and penetration rates for mental health and SUD services for mental illness-broad definition 2009

| Characteristics | Mental Health or SUD Prevalence | | Medi-Cal Utilization | | ADP Utilization | | DMH Utilization | |
|---|---|---|---|---|---|---|---|---|
| | N | %[1] | N | %[2] | N | %[3] | N | %[4] |
| **Total** | **7,979,978** | **8%** | **564,480** | **7%** | **162,811** | **2%** | **635,942** | **8%** |
| **Mental Health Illness – Broad Definition Adults**[33] | | | | | | | | |
| **Total** | 3,183,061 | 12% | 62,679 | 2% | -- | -- | N/A | |
| **Age** | | | | | | | | |
| **18-20** | 254,935 | 16% | 10,852 | 4% | | | | |
| **21-24** | 392,745 | 18% | 4,673 | 1% | | | | |
| **25-34** | 892,437 | 17% | 9,821 | 1% | | | | |
| **35-44** | 720,964 | 14% | 9,214 | 1% | | | | |
| **45-54** | 511,573 | 10% | 10,252 | 2% | | | | |
| **55-64** | 240,519 | 6% | 8,124 | 3% | | | | |
| **65+** | 169,888 | 4% | 9,736 | 6% | | | | |
| **Gender** | | | | | | | | |
| **Male** | 1,453,244 | 11% | 26,638 | 2% | -- | -- | N/A | |
| **Female** | 1,729,818 | 12% | 36,041 | 2% | -- | -- | N/A | |
| **Race / Ethnicity** | | | | | | | | |
| **White-NH** | 1,252,828 | 10% | 18,298 | -- | -- | -- | N/A | |
| **African American-NH** | 216,811 | 13% | 7,147 | -- | -- | -- | N/A | |
| **Asian-NH** | 311,918 | 9% | 1,533 | -- | -- | -- | N/A | |
| **Pacific Islander-NH** | 9,850 | 11% | 2,396 | -- | -- | -- | N/A | |
| **Native-NH** | 19,833 | 13% | 298 | -- | -- | -- | N/A | |
| **Other** | 60,142 | 14% | 19,505 | -- | -- | -- | N/A | |
| **Hispanic** | 1,311,678 | 15% | 12,936 | -- | -- | -- | N/A | |
| **Unknown/not reported** | | | 550 | -- | | | | |

## 5. Serious emotional disability (SED)

The SED population receives services funded by Medi-Cal and DMH. The prevalence rate for SED, estimated at 8% of the population, is notably twice that for SMI, a rate that is fairly constant across all demographic categories. Penetration rates for Medi-Cal and DMH, at 14% and 32%, respectively, are roughly comparable to those for the SMI population (22% and 35%). However, there is considerable variability in the penetration rates across agencies and demographic categories alike. Notably, rates for males are much higher than for females, twice as great in the case of Medi-Cal. Rates also differ considerably among racial and ethnic groups. However, given the unreliability of racial/ethnic status data, it would be a mistake to interpret this for policy purposes. Differences could also be impacted by the fact that many children receive services through their local education authority (LEA) (e.g., non-Medi-Cal funded LEA services), or other state agencies such as public health, child welfare or juvenile justice.

[33] The prevalence rates and penetration rates are exclusive of the SMI population.

### Table 7. Prevalence and penetration rates for SED 2009

| Characteristics | Mental Health or SUD Prevalence | | Medicaid Utilization | | DMH Utilization | |
|---|---|---|---|---|---|---|
| | N | %[1] | N | %[2] | %[1] | N |
| **Total** | **714,430** | **8%** | **99,661** | **14%** | **228,109** | **32%** |
| **0-5** | 248,544 | 8% | 7,067 | 3% | 28,793 | 12% |
| **6-11** | 230,033 | 7% | 42,424 | 18% | 73,000 | 32% |
| **12-17** | 235,853 | 8% | 50,079 | 21% | 126,316 | 54% |
| **Male** | 367,079 | 8% | 67,209 | 18% | 138,126 | 38% |
| **Female** | 347,351 | 8% | 32,451 | 9% | 89,692 | 26% |
| **White-NH** | 191,164 | 7% | 25,276 | -- | 43,795 | -- |
| **African American-NH** | 44,357 | 8% | 10,151 | -- | 24,840 | -- |
| **Asian-NH** | 69,175 | 7% | 782 | -- | 5,213 | -- |
| **Pacific Islander-NH** | 2,440 | 8% | 466 | -- | 971 | -- |
| **Native-NH** | 3,436 | 8% | 442 | -- | 2,209 | -- |
| **Other** | 23,787 | 7% | 34,575 | -- | 30,255 | -- |
| **Hispanic** | 380,071 | 8% | 27,051 | -- | 69,078 | -- |
| **Unknown/not reported** | -- | -- | 911 | -- | | |

## 6. Substance use disorder (SUD)

Three features of the statistics for SUD are particularly striking. The first is the variability in the prevalence estimates across demographic categories, for example with the rate for males twice that of females and the rate for persons in the 21-24 age group more than three times that of the 55-64 age group. The second aspect of note is the very low penetration for SUD services funded by either agency. Finally, there are the differences among racial/ethnic groups, although again, the data is not sufficient to provide any conclusive evidence about possible variations among groups.

### Table 8. Prevalence and penetration rates for SUD 2009

| Characteristics | SUD Prevalence | | Medicaid Utilization | | DADP Utilization | | DMH Utilization | |
|---|---|---|---|---|---|---|---|---|
| | N | % | N | % | N | % | N | % |
| **Total** | **2,903,974** | **7%** | **99,408** | **3%** | **162,811** | **6%** | **N/A** | |
| **Age** | | | | | | | | |
| **0-5** | 0 | -- | 611 | -- | -- | | | |
| **6-11** | 0 | -- | 282 | -- | 29 | N/A | | |
| **12-17** | 270,604 | 8% | 15,999 | 6% | 7,785 | 3% | | |
| **18-20** | 264,412 | 14% | 16,892 | 6% | 7,045 | 3% | | |
| **21-24** | 432,462 | 17% | 7,203 | 2% | 12,717 | 3% | | |
| **25-34** | 759,501 | 14% | 4,745 | 1% | 34,646 | 5% | | |
| **35-44** | 497,433 | 9% | 14,793 | 3% | 29,688 | 6% | | |
| **45-54** | 385,251 | 7% | 15,296 | 4% | 26,906 | 7% | | |
| **55-64** | 209,322 | 5% | 21,495 | 10% | 8,573 | 4% | | |
| **65+** | 84,989 | 2% | 14,526 | 17% | 1,195 | 1% | | |
| | | | | | | | | |
| **Male** | 1,966,497 | 8% | 52,439 | 3% | 102,922 | 5% | N/A | |
| **Female** | 937,479 | 4% | 46,969 | 5% | 59,889 | 6% | N/A | |
| **Race / Ethnicity** | | | | | | | | |
| **White-NH** | 1,316,525 | 6% | 36,747 | -- | 68,484 | -- | N/A | |
| **African American-NH** | 181,297 | 6% | 14,764 | -- | 24,307 | -- | N/A | |
| **Asian-NH** | 148,275 | 2% | 696 | -- | 3,556 | -- | N/A | |
| **Pacific Islander-NH** | 8,264 | 4% | 1,204 | -- | 425 | -- | N/A | |
| **Native-NH** | 35,146 | 11% | 1,096 | -- | 2,304 | -- | N/A | |
| **Other** | 86,045 | 9% | 23,425 | -- | 3,331 | -- | N/A | |
| **Hispanic** | 1,128,425 | 6% | 20,606 | -- | 57,614 | -- | N/A | |
| **Unknown/not reported** | | | 726 | -- | | -- | | |

## 7. Conclusions

These estimations of prevalence and penetration rates have certain limitations, which should be considered in interpreting these data. The most important of these are the following:

- Underestimation of true prevalence will tend to overstate penetration. All other things equal, this bias may be uneven across diagnostic or other population subgroups to the extent that underestimation of prevalence is uneven across these groups.
- Estimates become less reliable as the size of the group becomes smaller. This is particularly problematic in the case of smaller ethnic populations.
- The penetration rates represent only services identified as mental health and SUD treatment in the three agencies. People may receive services that address behavioral health issues but not identified (coded) as such, for example substance use counseling in primary care, or they may receive services outside these agencies.

Despite these limitations, the data suggests that there is likely an unmet need for treatment among all groups.

## E. MEDI-CAL BEHAVIORAL HEALTH UTILIZATION 2007-2009

As indicated in Table 9 below, the number of persons receiving Medi-Cal funded behavioral health services grew slightly over the 3-year period (about 3% from 2007 to 2008 and 4% from 2008 to 2009), and the distribution of enrollees by eligibility category was nearly constant across the three years. By far the largest single eligibility category is that of SSI/SSP under age 65 at 41-42% across the 3 years.

As discussed in the next section on expenditures, this small increase in the number of persons receiving services is only a part of the picture related to cost increases over the period. Other influences on costs include changes in the amount of service utilization, the mix of services (e.g., an overall shift from inpatient to outpatient care), the cost of services, the characteristics of the population and other factors.

### Table 9. Behavioral health services utilization by eligibility category 2007-2009

| Eligibility Category | 2007 | | 2008 | | 2009 | |
|---|---|---|---|---|---|---|
| | N | % | N | % | N | % |
| **Total** | **523,072** | **100%** | **540,804** | **100%** | **564,480** | **100%** |
| **CalWorks (TANF)** | 6,067 | 1% | 5,860 | 1% | 6,224 | 1% |
| **SSI/SSP <65** | 222,119 | 42% | 226,747 | 42% | 229,264 | 41% |
| **SSI/SSP ≥ 65** | 7,367 | 1% | 7,392 | 1% | 7,988 | 1% |
| **Other Eligibility Categories for ≥65** | 9,976 | 2% | 9,605 | 2% | 9,317 | 2% |
| **Foster Care** | 44,840 | 9% | 45,617 | 8% | 44,875 | 8% |
| **AFDC** | 150,521 | 29% | 158,968 | 29% | 171,002 | 30% |
| **Other Disabled** | 34,069 | 7% | 35,584 | 7% | 40,107 | 7% |
| **Other Child/Family** | 29,016 | 6% | 30,732 | 6% | 35,660 | 6% |
| **Unknown** | 10 | 0% | 178 | 0% | 172 | 0% |
| **All Remaining Other Eligibility Categories** | 19,087 | 4% | 20,121 | 4% | 19,872 | 4% |

*Note: Percentage may not total 100% due to rounding*

### 1. Demographic characteristics

Table 10 presents demographic distributions for the SMI, MI, SED and SUD groups receiving Medi-Cal services in 2009, including characteristics of high utilizers (top 20%, 10% and 5%). (Comparison with these categories of persons whose services are funded by DADP and DMH or some combination among the three agencies are provided in Appendix A).

**Overall Population:** The age distribution of Medi-Cal behavioral health recipients is bimodal with 27-64 by far the largest age group, constituting 50% of the total, followed by the 13 and under group at 21%. Females are represented slightly higher than males.

As discussed in the Methods section, race and ethnicity statistics California behavioral health service recipients, are not highly reliable, as is the case for most administrative health care data sets). Consequently, these figures should not be the basis for determining the presence or absence of racial or ethnic disparities, which would require more detailed focused studies.

### Table 10. Medi-Cal behavioral health service recipients by demographic category with high utilizers 2009

| Characteristics | Total | | Top 20% MH/SUD Service Utilizers | | Top 10% MH/SUD Service Utilizers | | Top 5% MH/SUD Service Utilizers | | No Outpatient MH/SUD Service Received | |
|---|---|---|---|---|---|---|---|---|---|---|
| | N | % | N | % | N | % | N | % | N | % |
| **Medicaid Beneficiaries** | 564,480 | 100% | 112,896 | 20% | 56,449 | 10% | 28,225 | 5% | 28,840 | 5% |
| **Demographics** | | | | | | | | | | |
| **Age** | | | | | | | | | | |
| **0-13** | 121,286 | 21% | 25,988 | 21% | 10,302 | 8% | 3,731 | 3% | 4,681 | 4% |
| **14-17** | 74,104 | 13% | 19,593 | 26% | 9,718 | 13% | 4,111 | 6% | 4,759 | 6% |
| **18-21** | 30,035 | 5% | 6,436 | 21% | 3,321 | 11% | 1,503 | 5% | 2,404 | 8% |
| **22-26** | 24,875 | 4% | 4,293 | 17% | 2,632 | 11% | 1,371 | 6% | 1,885 | 8% |
| **27-64** | 280,653 | 50% | 50,251 | 18% | 26,305 | 9% | 14,590 | 5% | 14,206 | 5% |
| **65+** | 33,458 | 6% | 6,329 | 19% | 4,169 | 12% | 2,918 | 9% | 905 | 3% |
| **Gender** | | | | | | | | | | |
| **Male** | 274,044 | 49% | 61,189 | 22% | 30,861 | 11% | 15,284 | 6% | 13,340 | 5% |
| **Female** | 290,436 | 51% | 51,707 | 18% | 25,588 | 9% | 12,941 | 4% | 15,500 | 5% |
| **Race / Ethnicity** | | | | | | | | | | |
| **White-NH** | 169,138 | 30% | 39,482 | 23% | 21,914 | 13% | 12,108 | 7% | 4,853 | 3% |
| **African American-NH** | 61,543 | 11% | 15,491 | 25% | 8,810 | 14% | 4,821 | 8% | 3,501 | 6% |
| **Asian-NH** | 7,500 | 1% | 1,407 | 19% | 797 | 11% | 454 | 6% | 110 | 1% |
| **Pacific Islander-NH** | 13,460 | 2% | 2,697 | 20% | 1,624 | 12% | 934 | 7% | 186 | 1% |
| **Native-NH** | 3,154 | 1% | 707 | 22% | 356 | 11% | 188 | 6% | 63 | 2% |
| **Other** | 186,747 | 33% | 28,459 | 15% | 11,237 | 6% | 4,081 | 2% | 15,848 | 8% |
| **Hispanic** | 117,863 | 21% | 23,544 | 20% | 11,065 | 9% | 5,265 | 4% | 4,041 | 3% |
| **Unknown/Not Reported** | 4,898 | 1% | 1,110 | 23% | 646 | 13% | 374 | 8% | 238 | 5% |

## 2. Utilization by beneficiary category

### *a) Overall population*

Not surprisingly the largest eligibility category among behavioral health service recipients is SSI/SSP <65, as this group typically includes significant numbers of persons with SMI. Along with the second largest category, AFDC at 30 percent, these two groups represent over two thirds of recipients. It is likely, however, that these groups differ from one another in the most common diagnoses and in the type of service used, with SSI/SSP <65 persons with SMI more likely to use more expensive types of services such as inpatient than an AFDC population.

### *b) High utilizers*

Compared to demographic categories, the distribution of high utilizers by eligibility status is somewhat more varied, though it is difficult to ascertain any clear pattern except for the disproportionately high representation of, "Other Eligibility Categories for ≥65." As this group comprises only two percent of the overall population, this is likely to be an artifact of small numbers (the disproportionate effect of outliers); nonetheless there may be something about this residual category that would merit investigation for purposes of quality.

### Table 11. Medi-Cal behavioral health service recipients by beneficiary category with high utilizers 2009

| Characteristics | Total | | Top 20% MH/SUD Service Utilizers | | Top 10% MH/SUD Service Utilizers | | Top 5% MH/SUD Service Utilizers | | No Outpatient MH/SUD Service Received | |
|---|---|---|---|---|---|---|---|---|---|---|
| | N | % | N | % | N | % | N | % | N | % |
| **Medicaid Beneficiaries** | **564,480** | **100%** | **112,896** | **20%** | **56,449** | **10%** | **28,225** | **5%** | **28,840** | **5%** |
| **CalWorks (TANF)** | 6,224 | 1% | 858 | 14% | 415 | 7% | 176 | 3% | 752 | 12% |
| **SSI/SSP <65** | 229,264 | 41% | 51,216 | 22% | 27,983 | 12% | 15,172 | 7% | 11,722 | 5% |
| **SSI/SSP ≥ 65** | 7,988 | 1% | 1,321 | 17% | 847 | 11% | 552 | 7% | 152 | 2% |
| **Other Eligibility Categories for ≥65** | 9,317 | 2% | 2,124 | 23% | 1,746 | 19% | 1,386 | 15% | 146 | 2% |
| **Foster Care** | 44,875 | 8% | 14,541 | 32% | 7,467 | 17% | 3,327 | 7% | 1,624 | 4% |
| **AFDC** | 171,002 | 30% | 25,014 | 15% | 9,041 | 5% | 3,113 | 2% | 8,847 | 5% |
| **Other Disabled** | 40,107 | 7% | 8,166 | 20% | 4,710 | 12% | 2,830 | 7% | 2,160 | 5% |
| **Other Child/Family** | 35,660 | 6% | 6,238 | 17% | 2,805 | 8% | 1,059 | 3% | 1,843 | 5% |
| **Unknown** | 172 | 0% | 28 | 16% | 12 | 7% | 4 | 2% | 1 | 1% |
| **All Remaining Other Eligibility Categories** | 19,872 | 4% | 3,391 | 17% | 1,423 | 7% | 606 | 3% | 1,593 | 8% |

## 3. Diagnostic group and special populations

Table 12 provides a breakdown of the overall population and high utilization groups according diagnostic category and special population status (Co-Occurring Mental Health/SUD).

### *a) Overall population*

The SMI group, at 45% represents by far the largest proportion of the total behavioral health recipient population with the remainder fairly evenly distributed across the other diagnostic categories. This distribution may require some further analysis to determine whether or not it is appropriate. On the one hand, persons with SMI among all the groups certainly represent the greatest need, but on the other hand, as a relatively small proportion of the overall population, it may suggest problems of access for other categories of recipients.

### *b) High utilizers*

The diagnostic category with the highest proportionate representation in the top 20 and top 10 utilizer groups are the SED population with 30 percent of this category in the top 20 and 15 percent in the top 10 percent. They are closely followed by the SMI population, at 22 and 13 percent respectively. In the top 5 percent of service utilizers, SMI and SED are equal at 6-7 percent of the two diagnostic categories in that high utilization group. This disproportionate representation by SED, particularly in the top 20 percent utilization user group, indicates that a subset of this category has unusually high rates of service; an item for potential prioritization for the system planning process.

### Table 12. Medi-Cal behavioral health service recipients by diagnostic category with high utilizers 2009

| Characteristics | Total | | Top 20% MH/SUD Service Utilizers | | Top 10% MH/SUD Service Utilizers | | Top 5% MH/SUD Service Utilizers | | No Outpatient MH/SUD Service Received | |
|---|---|---|---|---|---|---|---|---|---|---|
| | N | % | N | % | N | % | N | % | N | % |
| **SMI** | 255,603 | 45% | 55,373 | 22% | 32,513 | 13% | 18,081 | 7% | 14,680 | 6% |
| **SED** | 99,661 | 18% | 30,222 | 30% | 14,916 | 15% | 6,441 | 6% | 4,464 | 4% |
| **Substance Use Only** | 61,613 | 11% | 7,735 | 13% | 1,480 | 2% | 959 | 2% | 418 | 1% |
| **Other BH Adult** | 62,679 | 11% | 5,034 | 8% | 2,620 | 4% | 1,419 | 2% | 4,335 | 7% |
| **Other BH Youth** | 84,925 | 15% | 14,533 | 17% | 4,920 | 6% | 1,325 | 2% | 4,943 | 6% |
| **Special Populations** | | | | | | | | | | |
| **Co-Occurring Mental Health/SUD** | 99,408 | 18% | 24,601 | 25% | 11,572 | 12% | 6,771 | 7% | 1,190 | 1% |

## 4. Emergency department (ED) utilization for a behavioral health issue

Although ED utilization for a behavioral health issue usually involves a very small proportion of a behavioral health population, it can be an important indicator of system effectiveness in several respects. ED admissions are not always avoidable of course; however, they are properly regarded as adverse events that represent at best a disruption in continuity of care and can indicate a treatment failure. They are often considered as an indicator of whether a mental health and/or substance use outpatient service system is adequate when a quality initiative involving decreased inpatient care is underway. An ED admission is by definition a crisis that involves some degree of elevated risk and therefore represents a critical incident in patient care. From the consumer perspective, ED admissions are not always voluntary, or if they are entirely voluntary, they can signal a lack of engagement in treatment. Finally, the ED is a very costly

form of treatment, both for the service in itself and because it often functions as a gateway to hospitalization.

Tables 13-15 present information on ED admission for each of the years 2007 to 2009, broken out by diagnostic cohort and grouping by number of admissions. As a percentage of the behavioral health population as a whole having any ED admissions, the rate remains remarkably consistent across the three years at about 1 percent This consistency holds among the grouping by frequency of admission as well, with only one, two or three percent in the categories of individuals with more than two admissions in a year. Finally, the rate is consistent across the diagnostic subgroups, i.e. there was no shifting from one group to another. Given the reduction in inpatient utilization relative to outpatient care discussed earlier, this is a positive if somewhat crude indicator that this transition has not had a negative impact on system effectiveness.

From a quality improvement perspective, of course, given all of the negative consequences of ED utilization it is desirable not only to maintain rates but to reduce them. For the SMI population in particular, of which almost a fifth visit the ED at least once a year, a reduction in this rate would be a significant gain in system performance.

### Table 13. Number of ED admissions for behavioral health by cohort 2009

| Cohort | Number of BH Admissions | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 0 | | 1-2 | | 3-4 | | 5-6 | | 7+ | | Total | |
| | N | % | N | % | N | % | N | % | N | % | N | % |
| **SMI** | 204,238 | 80% | 34,643 | 14% | 8,964 | 4% | 3,468 | 1% | 4,290 | 2% | 255,603 | 100% |
| **SED** | 89,966 | 90% | 6,736 | 7% | 1,627 | 2% | 569 | 1% | 763 | 1% | 99,661 | 100% |
| **Substance Use Only** | 51,821 | 84% | 8,719 | 14% | 713 | 1% | 182 | 0% | 178 | 0% | 61,613 | 100% |
| **Other BH – Adult** | 52,249 | 83% | 9,325 | 15% | 812 | 1% | 165 | 0% | 128 | 0% | 62,679 | 100% |
| **Other BH – Youth** | 78,878 | 93% | 5,094 | 6% | 686 | 1% | 157 | 0% | 110 | 0% | 84,925 | 100% |
| **Total** | **477,152** | **85%** | **64,517** | **11%** | **12,802** | **2%** | **4,541** | **1%** | **5,469** | **1%** | **564,481** | **100%** |

### Table 14. Number of ED admissions for behavioral health by cohort 2008

| Cohort | Number of BH Admissions | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 0 | | 1-2 | | 3-4 | | 5-6 | | 7+ | | Total | |
| | N | % | N | % | N | % | N | % | N | % | N | % |
| **SMI** | 201,140 | 80% | 34,024 | 13% | 9,254 | 4% | 3,431 | 1% | 4,334 | 2% | 252,183 | 100% |
| **SED** | 80,190 | 91% | 5,402 | 6% | 1,396 | 2% | 507 | 1% | 648 | 1% | 88,143 | 100% |
| **Substance Use Only** | 48,709 | 84% | 7,848 | 14% | 1,118 | 2% | 198 | 0% | 153 | 0% | 58,026 | 100% |
| **Other BH – Adult** | 58,227 | 85% | 8,714 | 13% | 1,201 | 2% | 180 | 0% | 148 | 0% | 68,470 | 100% |
| **Other BH – Youth** | 69,197 | 94% | 3,905 | 5% | 628 | 1% | 145 | 0% | 107 | 0% | 73,982 | 100% |
| **Total** | **457,463** | **85%** | **59,893** | **11%** | **13,597** | **3%** | **4,461** | **1%** | **5,390** | **1%** | **540,804** | **100%** |

### Table 15. Number of ED admissions for behavioral health by cohort 2007

| Cohort | Number of BH Admissions | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 0 | | 1-2 | | 3-4 | | 5-6 | | 7+ | | Total | |
| | N | % | N | % | N | % | N | % | N | % | N | % |
| **SMI** | 199,498 | 80% | 34,904 | 14% | 8,253 | 3% | 3,225 | 1% | 3,949 | 2% | 249,829 | 100% |
| **SED** | 69,600 | 92% | 4,496 | 6% | 983 | 1% | 337 | 0% | 487 | 1% | 75,903 | 100% |
| **Substance Use Only** | 47,552 | 84% | 7,936 | 14% | 605 | 1% | 144 | 0% | 93 | 0% | 56,330 | 100% |
| **Other BH – Adult** | 67,029 | 86% | 9,257 | 12% | 906 | 1% | 193 | 0% | 138 | 0% | 77,523 | 100% |
| **Other BH – Youth** | 60,018 | 95% | 2,911 | 5% | 383 | 1% | 111 | 0% | 64 | 0% | 63,487 | 100% |
| **Total** | **443,697** | **85%** | **59,504** | **11%** | **11,130** | **2%** | **4,010** | **1%** | **4,731** | **1%** | **523,072** | **100%** |

## 5. Allocation of resource across services domains

The issue of ED utilization and system performance in general may be explored more deeply by considering these issues in relation to other types of care or treatment settings. Tables 7a-7c in Appendix A, present information on treatment encounters, defined as visits to any outpatient provider for any one of six categories of behavioral health services: mental health outpatient, inpatient stay for mental health treatment, crisis services, rehabilitation services, and residential stay across the three years 2007-2009, broken out by diagnostic category and by specialty mental health versus non-specialty mental health plan beneficiaries.[34]

[34] A listing of the various services comprising each category is located in Appendix A, Tables 20-21.

Although, at first sight, this array of data may seem somewhat difficult to assimilate, it may be understood with respect to a set of policy relevant questions. Among the many possible questions that one might ask, this discussion focuses on four:

1. What is the configuration of the system as a whole in terms of resource allocation or balance of services?
2. What are trends across the three year period in overall utilization in each of the four treatment settings?
3. Are there differences in these trends among the four diagnostic subgroups?
4. Are there differences in trends between specialty versus non-specialty plan beneficiaries?

For these questions the data below provide a rich overview of the Medi-Cal behavioral health service system as configured by the six primary service components of residential, emergency, hospital/inpatient, mental health outpatient, mental health rehabilitation and substance use services. A listing of the various services comprising each category is located in Appendix A, Tables 20-21.

Reiterating the perspective articulated above, these components may be considered as to the extent that the relationship among them represents a well-balanced system, based on the assumption that accessible and effective outpatient care serves to reduce utilization of inpatient and ED utilization, and that residential treatment may be an important form of community support for the subset of consumers.

As a somewhat simplified way of considering the implications of these figures for quality and cost, one could perceive percentages as indications of quality and access (i.e. as penetration rates) and absolute numbers of service recipients and amount of services as measures of cost. Amount of service also has implications for appropriateness and access. Related to quality and overall costs of care, however, it should be kept in mind that that these are not the only services received by these individuals, especially in the case of the SMI and SED groups.

Given the way in which the data is arrayed, the most general level of consideration is: in 2009 as the most recent point in time for which information is available, how much care in each of the six treatment settings[35] was provided for each of the diagnostic categories in the two types of plan?

Some highlights with implications for both quality and costs are as follows.

**Residential**: Very little residential programming was provided with less than one percent of specialty and no non-specialty beneficiaries receiving any at all. This is not unexpected given that Medi-Cal does

[35] A listing of the various services comprising each category is located in Appendix A, Tables 20-21.

not pay for room and board costs associated with residential facilities and are more commonly a DMH-funded service provided for people with SMI.

**Crisis services:** For specialty beneficiaries utilization was highest for SMI with 21 percent having at least one episode. For non-specialty, SUD at 27 percent was highest. For SED, ten percent of specialty but only one percent of non-specialty had any utilization. Only about one percent of these groups had 4 or more visits however.

**Hospital/Inpatient**: Not surprisingly, SMI again had the largest proportion receiving inpatient care with 18 percent of specialty and notably even more, 22 percent, of non-specialty[36] SMI being hospitalized. The proportion of SMI being hospitalized differed substantially between specialty and non-specialty at 3 percent and 6 percent respectively. In the specialty and non-specialty SMI population combined, more than 9,500 persons were hospitalized 11 or more times in 2009.

Nine percent of specialty SED, about 8,000 individuals, but only a handful of non-specialty SED received inpatient care. Other BH adults were also fairly high users of inpatient care, with 8 percent of specialty and 12 percent of non-specialty, about 3,000 in each group.

**Mental Health Outpatient: SMI--**A large proportion of this group, 90 percent of specialty-plan SMI and 75 percent of non-specialty SMI, had some outpatient treatment with about a quarter of specialty and half of non-specialty having no more than three visits. **SED**--In specialty plans, 95 percent had some outpatient care and almost 60 percent had 11 or more visits. For non-specialty SED, the proportion having any outpatient care was even greater, with 98 percent having some outpatient treatment. For about 80 percent, however, this consisted of only one to three visits. Also notable under Mental Health Outpatient is that only about 16 percent of specialty SUD and 20 percent of non-specialty received any outpatient mental health care (although as seen below many received substance use services).

**Mental Health Rehabilitation:** Rehabilitation services were provided for about half of all categories except SUD in the specialty plan but almost no one in the non-specialty plan received these services. Only 7 percent of SUD in the specialty plan and almost none in the non-specialty plan received rehabilitation services. About a quarter of all groups had only one to three encounters.

[36] All psychiatric hospital claims are paid under the 1915(b) specialty mental health system. The term "non-specialty" here refers to inpatient hospital utilization and costs that were not coded as Short-Doyle claims. The data suggests that some individuals with inpatient hospital claims do not have other specialty mental health service encounters within the same time frame, but further analysis of this issue is needed.

**Substance Use Services:** Not surprisingly, a very large proportion, 94 percent, of the specialty SUD group received substance use services. For non-specialty SUD, this was a somewhat smaller proportion, 82 percent. A very small proportion of other diagnostic categories received any substance use services, the highest being SMI with 13 percent. For the latter group, given the prevalence of co-morbidity among this population, this may indicate some level of underutilization. About two-thirds of the SUD group had at least 11 substance use service encounters.

**Trends:** Overall there was very little change in the distribution of treatment encounters over the three years. The only differences between 2007 and 2009 of any note are:

**Inpatient**: For non-specialty SMI, there was a decrease of more than 20 percent in the proportion of the group hospitalized about 2,000 fewer people hospitalized one or more times during in a year. A similar decrease occurred for the non-specialty Other BH-Adult group. There was little or no change for any group in the specialty plan.

**Mental Health Outpatient**: For the non-specialty SMI group there was an increase from 70 to 75 percent of the group receiving some amount of outpatient treatment. For the specialty SMI group there was little change, with about 90 percent receiving outpatient treatment.

For all other service, there was little or no change in the proportion of any group from 2007 to 2009.

## F. MEDI-CAL BEHAVIORAL HEALTH SERVICE EXPENDITURES

Medi-Cal behavioral health expenditures are presented along several dimensions: by year, by service domain, by Medi-Cal beneficiary demographic category, by eligibility category, by diagnostic grouping (SMI, SED, SUD, other BH adult and child), by special population breakouts (co-occurring MI/SUD, chronic physical illness), by service utilization categories (high users, no MH/SUD services).

As with utilization, the gap between median and average per-person expenditures is often quite large, indicating that a large part of the population received very few and/or very low cost services, while a smaller proportion of the population received large amounts and/or more costly types of services.

### 1. Overall behavioral health expenditures 2007-2009[37]

Table 16 presents, in condensed form, total behavioral health expenditures over the three year period, and expenditures broken out by mental health and substance use services. It is evident that behavioral health

[37] Note: these expenditures do not include pharmacy costs, which were not part of the scope of work of this analysis. Psychiatric pharmacy costs, net of drug rebates for 2007 were $305 million; for 2008 the net costs were $332.7 million; and for 2009 the net costs were $345.2 million.

expenditures increased considerably over the period, by about 8 percent from 2007 to 2008 and about 12 percent from 2008 to 2009.

### Table 16. Medicaid beneficiary behavioral health expenditures 2009-2007

| Year | N | Total Behavioral Health Expenditure | Mental Health Service Expenditure | Substance Use Service Expenditure | Median Total BH Expenditure Per User | Average Total BH Expenditure Per User |
|---|---|---|---|---|---|---|
| **2009** | 564,480 | $3,809,008,639 | $3,402,989,285 | $406,019,354 | $1,410 | $6,748 |
| **2008** | 540,804 | $3,412,409,924 | $3,033,223,151 | $379,186,773 | $1,393 | $6,310 |
| **2007** | 523,072 | $3,167,469,868 | $2,849,197,909 | $318,271,959 | $1,291 | $6,056 |

## 2. Expenditures by plan 2007-2009

Table 17 below presents overall Medi-Cal behavioral health expenditures for 2007-2009, in total and broken out by plan (specialty and non-specialty), and median and average per person expenditures. The number of service recipients increased over the three years and, as one would expect, so did the overall expenditures. However, it can be seen that increased participation does not account for all of the increase in expenditures, as the median and average expenditure per user also increased in all categories with the exception of a slight decline in the median for specialty mental health in 2009. These increases in median and mean expenses vary in magnitude among years and plans, with the greatest being the average expenditure per user between 2008 and 2009, an increase of about 12 percent. This suggests a possible benefit in looking into the nature of these expenditures in more detail, to understand whether the increase is due to changes in the service mix, increased costs of the services used by this group compared to others, or some other factor.

### Table 17. Medi-Cal expenditures total and by non-specialty, and specialty health plans, including median and average per person expenditure 2007-2009

| Year and Plan | Any Use | Total Expenditure | Median Expenditure Per User | Average Expenditure Per User |
|---|---|---|---|---|
| | N | | | |
| **2007-Total** | 523,072 | $3,167,469,868 | $1,291 | $6,056 |
| **2008-Total** | 540,804 | $3,412,409,924 | $1,393 | $6,310 |
| **2009-Total** | 564,480 | $3,809,008,639 | $1,410 | $6,748 |
| **Non specialty 2007** | 150,329 | $1,342,645,365 | $158 | $8,931 |
| **Non specialty 2008** | 149,939 | $1,332,718,389 | $212 | $8,888 |
| **Non specialty 2009** | 162,105 | $1,623,611,594 | $248 | $10,016 |
| **Specialty 2007** | 437,620 | $1,824,824,503 | $1,540 | $4,170 |
| **Specialty 2008** | 460,047 | $2,079,691,535 | $1,642 | $4,521 |
| **Specialty 2009** | 478,946 | $2,185,397,045 | $1,634 | $4,563 |

## 3. Foster care and EPSDT expenditures by plan 2007-2009

Table 18 presents expenditures for foster care beneficiaries for the years 2007-2009, in total and broken out by plan (specialty and non-specialty), and median and average per person expenditures. In contrast to other aspects of the Medi-Cal behavioral health system, the number of foster care service recipients expanded minimally. However expenditures grew about 13 percent over the period generally consistent with increases elsewhere in the system.

### Table 18. Medi-Cal expenditures foster care beneficiaries total and by non-specialty, and specialty health plans, including median and average per person expenditure 2007-2009

| Year and Plan | Any Use N | Total Expenditure | Median Expenditure Per User | Average Expenditure Per User |
|---|---|---|---|---|
| **2007-Total** | 50,232 | $433,470,123 | $2,937 | $8,629 |
| **2008-Total** | 51,209 | $451,281,748 | $2,891 | $8,813 |
| **2009-Total** | 52,837 | $493,333,696 | $3,282 | $9,337 |
| **Non specialty 2007** | 11,068 | $63,751,734 | $156 | $5,760 |
| **Non specialty 2008** | 10,815 | $52,928,462 | $192 | $4,894 |
| **Non specialty 2009** | 11,156 | $61,923,129 | $196 | $5,551 |
| **Specialty 2007** | 47,037 | $369,718,389 | $3,196 | $7,860 |
| **Specialty 2008** | 48,208 | $398,353,286 | $3,421 | $8,263 |
| **Specialty 2009** | 47,958 | $420,962,480 | $3,670 | $8,778 |

As indicated in Table 19, EPSDT expenditures [38] increased about 10 percent during the period, most of which was driven by increased utilization, as per-member expenditures grew relatively little.

### Table 19. Medi-Cal expenditures EPSDT total and by non-specialty, and specialty health plans, including median and average per person expenditure 2007-2009

| Year and Plan | Any Use N | Total Expenditure | Median Expenditure Per User | Average Expenditure Per User |
|---|---|---|---|---|
| **2007-Total** | 13,932 | $62,727,056 | $550 | $4,502 |
| **2008-Total** | 16,285 | $81,371,838 | $558 | $4,997 |
| **2009-Total** | 28,903 | $122,329,659 | $607 | $4,232 |
| **Non specialty 2007** | 3,302 | $13,210,977 | $140 | $4,001 |
| **Non specialty 2008** | 3,650 | $15,534,115 | $168 | $4,256 |
| **Non specialty 2009** | 4,292 | $20,691,889 | $210 | $4,821 |
| **Specialty 2007** | 12,290 | $49,516,079 | $685 | $4,029 |
| **Specialty 2008** | 14,535 | $65,837,723 | $699 | $4,530 |
| **Specialty 2009** | 18,299 | $82,052,758 | $619 | $4,484 |

[38] This represents only a portion of the EPSDT expenditures. The variable used to identify these expenditures is often missing, so these figures represent an underestimate. Youth in foster care are also eligible for EPSDT services.

## 4. Behavioral health expenditures by high utilizers 2007-2009

Health care costs are typically skewed by a relatively small number of people accounting for a disproportionately large amount of total costs. Higher per person costs may be due to these individuals, compared to the population as a whole, using more services or higher cost services or both. Accordingly, it is important to compare median and per-person average costs in tandem. Thus, the greater the difference between median and average per-person costs, the greater is the extent to which the average is skewed by high cost outliers. This situation suggests a possible target for interventions to improve appropriateness of care and simultaneously to reduce costs.

### Table 20. Summary table of behavioral health expenditures by top utilizers 2007-2009

| Condition | N | Avg. $ per person | Total Expenditure | % of Total Expenditure |
|---|---|---|---|---|
| | | 2007 | | |
| **Top 20%** | 104,615 | $24,813 | $2,595,794,147 | 82% |
| **Top 10%** | 52,308 | $41,665 | $2,179,393,078 | 69% |
| **Top 5%** | 26,154 | $66,605 | $1,741,995,314 | 55% |
| | | 2008 | | |
| **Top 20%** | 108,161 | $116,687 | $2,777,285,503 | 81% |
| **Top 10%** | 54,081 | $242,071 | $2,319,243,118 | 68% |
| **Top 5%** | 27,041 | $379,501 | $1,850,558,897 | 54% |
| | | 2009 | | |
| **Top 20%** | 112,897 | $27,682 | $3,125,270,700 | 82% |
| **Top 10%** | 56,449 | $46,413 | $2,619,972,959 | 69% |
| **Top 5%** | 28,225 | $73,943 | $2,087,045,274 | 55% |

## 5. Expenditures by top utilizers by diagnostic category 2009

Table 21 provides a breakout of the top utilizer groups by diagnostic category for 2009 (similar data for 2007 and 2008 is provided in Appendix A). These data do indicate significant skewing of per-person costs primarily for the SMI population with the top 5, 10 and 20 percent groups each accounting for at least 60 percent of the costs, indicating the likelihood that specialized interventions targeting high utilizers in the SMI group would be cost effective. (The nature of these interventions, of course would depend on the details of service utilization contributing to the disproportionate expenditures, for example whether it is due to great utilization of inpatient service or emergency departments, or other factors.)

Another notable aspect of this table is the exceptionally high per person costs of the SUD population in the top 10 and top 5 percent utilization groups. Again this maybe an aberration of small numbers (skewing by a very small number of exceptionally high cost patients), particularly since this group was not exceptional in average expenditures for the top 20 percent group. Also, because the SUD population

is such a small proportion of the total, absolute expenditures for the group remain in the middle of the pack. Nonetheless, it might be worthwhile, for reasons of quality and cost effectiveness, to examine the high user SUD population in more detail in order to consider an appropriate system or service intervention.

### Table 21. Table of behavioral health expenditures by top utilizers and diagnostic category, 2009

| Condition | N | Avg. per person | Total Expenditure | % of Total 2009 Expenditure by Cohort[1] |
|---|---|---|---|---|
| **TOP 20%** | | | | |
| **SMI** | 55,373 | $33,796 | $1,871,361,315 | 60% |
| **SED** | 30,222 | $22,070 | $666,992,269 | 21% |
| **Substance Use Only** | 7,735 | $26,890 | $207,994,839 | 7% |
| **Other BH – Adult** | 5,034 | $33,256 | $167,409,785 | 5% |
| **Other BH – Youth** | 14,533 | $14,554 | $211,512,492 | 7% |
| **Total** | **112,897** | **$27,682** | **$3,125,270,700** [39] | **100%** |
| **TOP 10%** | | | | |
| **SMI** | 32,513 | $51,136 | $1,662,587,084 | 63% |
| **SED** | 14,916 | $35,298 | $526,498,315 | 20% |
| **Substance Use Only** | 1,480 | $108,367 | $160,382,521 | 6% |
| **Other BH – Adult** | 2,620 | $55,494 | $145,394,523 | 6% |
| **Other BH – Youth** | 4,920 | $25,429 | $125,110,516 | 5% |
| **Total** | **56,449** | **$46,413** | **$2,619,972,959**[40] | **100%** |
| **TOP 5%** | | | | |
| **SMI** | 18,081 | $76,723 | $1,387,234,435 | 66% |
| **SED** | 6,441 | $56,969 | $366,934,666 | 18% |
| **Substance Use Only** | 959 | $157,195 | $150,750,190 | 7% |
| **Other BH – Adult** | 1,419 | $86,661 | $122,971,680 | 6% |
| **Other BH – Youth** | 1,325 | $44,645 | $59,154,303 | 3% |
| **Total** | **28,225** | **$73,943** | **$2,087,045,274**[41] | **100%** |

## 6. Expenditures by service domain 2009

Figures 3 and 4 represent the distribution of Medi-Cal behavioral health expenditures across service domains in 2007 and 2009 (2008 is presented in Appendix A, Figure 2). A noteworthy difference between 2007 and 2009 is the change in the relative allocations between inpatient and outpatient mental health service, which were nearly reversed in the three year period. Whereas inpatient services accounted for 42 percent of behavioral health expenditures in 2007, by 2009 this had been reduced to only 38 percent. In contrast, outpatient services went from 39 percent in 2007 to 44 percent in 2009. In terms of absolute

[39] This total represents 82% of the total expenditures for 2009.
[40] This total represents 69% of the total expenditures for 2009.
[41] This total represents 55% of the total expenditures for 2009.

dollars, in 2007 inpatient expenditures exceeded outpatient by approximately $84 million whereas in 2009, this relationship was reversed with outpatient exceeding inpatient by $246 million.

Several aspects of this shift are important to note. First, while shifting allocation of resources from inpatient to outpatient services is, of course, a key quality and cost strategy, total expenditures nonetheless did increase from 2007 to 2009 by about 625 million, or about 20 percent. While inpatient expenditures costs did go down as a proportion of overall expenditures, they did increase significantly in terms of absolute dollars by approximately 93 million dollars, or 7 percent. At the same time, outpatient expenditures increased about 42 million dollars, or 34 percent. Therefore, the overall cost increase should be viewed in a "what if" context: how much greater would the increase have been, had the ratio of inpatient to outpatient expenditures remained constant over the three year period?

A second important consideration is the potential impact of this shift on access and quality of services. Reallocation of resources from inpatient to outpatient services is generally regarded as both cost effective and beneficial for consumers. This presumes, however, that access and quality of outpatient care is commensurate with the reduction of inpatient care. Accordingly, it is important to consider this change in resource allocation in the light of other information on access and quality, such as readmission rates, as discussed in the next section.

Figures 3 and 4 provide an indication of the impact on access, and emergency department utilization. One potential adverse consequence of reducing inpatient utilization, if not accompanied by increased access to outpatient and community supports, is an increase in psychiatric crises in the community. Given this, an increase in emergency department utilization could be a red flag for quality and access issues related to outpatient services. The fact that expenditures for emergency department utilization remained stable at two percent from 2007 to 2009 indicates that the outpatient system may be able to meet need.

Finally of note is that expenditures for substance use services remain constant as a proportion of overall spending at 10 percent. Increased spending in this component may also have an effect of reducing emergency department utilization.

Given these figures for mental health community support and substance use services, it may be worthwhile to examine emergency department utilization as a potential opportunity for improvement of quality while reducing or at least maintaining expenditure levels.

**Figure 3. Total Medi-Cal expenditures by service domain 2007**

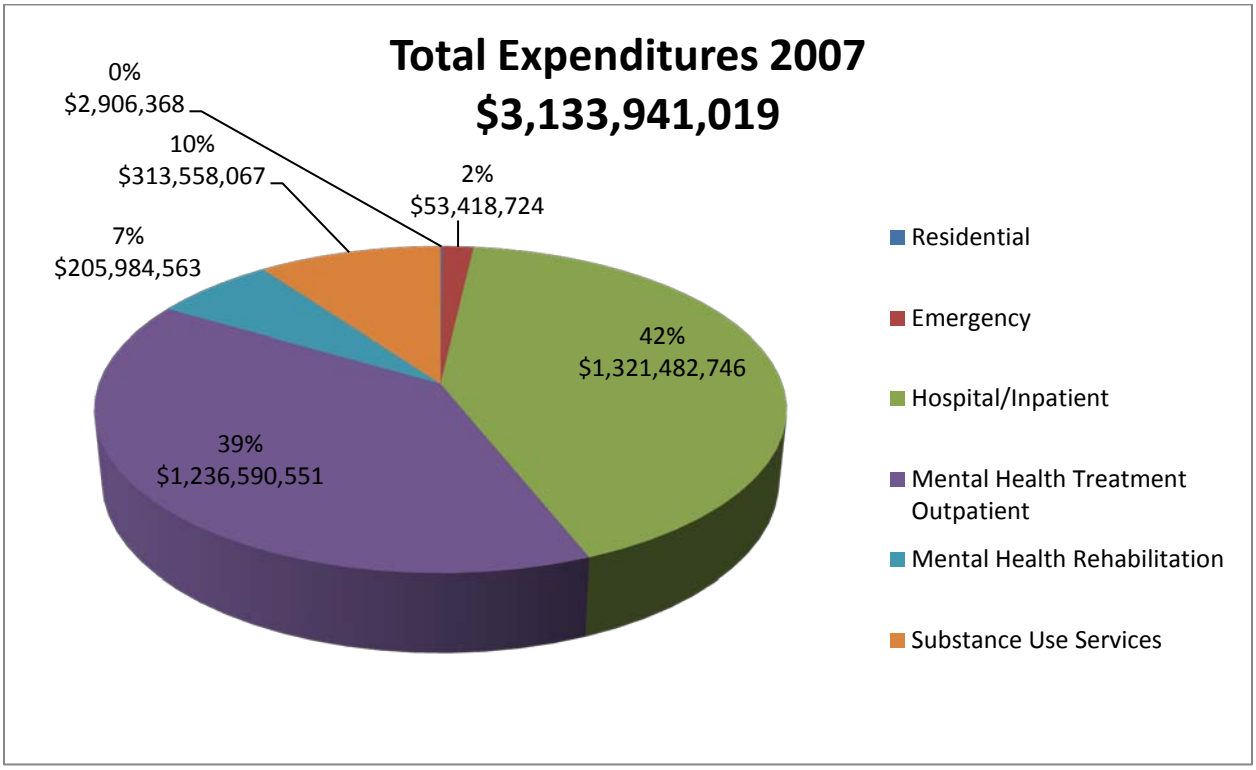
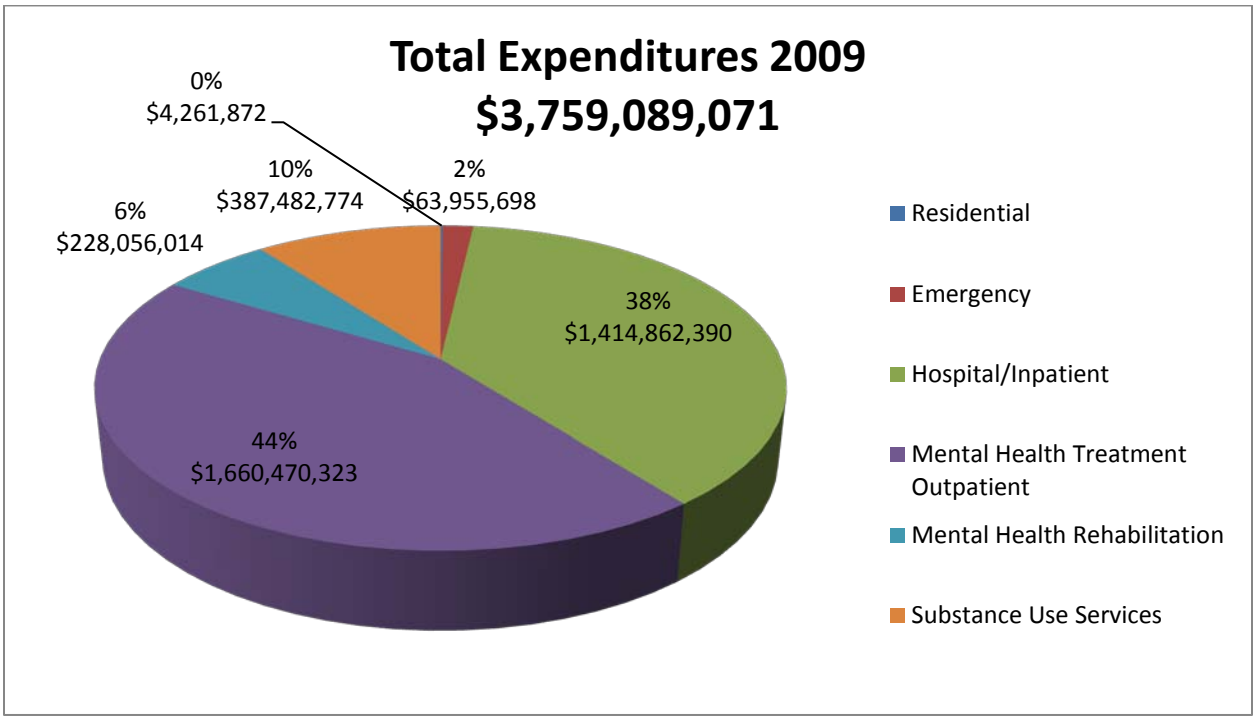



**Figure 4. Total Medi-Cal expenditures by service domain 2009**



More detailed information about categories of expenditures (gender, race, service type, eligibility category, diagnostic group and special populations) for the 2007 and 2008 are presented in the appendix. These details for 2009 are discussed below

## 7. Expenditures by demographic group 2009

Similar to penetration rates for sub-groups of consumers, review of expenditures by group serves the dual purpose of identifying potential opportunities to address both disparities and targets for cost reduction related to high utilization.

Table 22 presents information about total expenditures for demographic categories and median and average expenditures for beneficiaries in each category. It should be kept in mind that the number of individuals represents an unduplicated count of persons with any use; therefore differences among categories in total expenditures may reflect either differences in the amount of services received per person or on the types of services, for example if one category tended to use more inpatient services compared to another for which utilization was predominately lower-cost outpatient care.

Consistent with patterns of health care costs generally, the population of persons aged 65 and above is one for whom costs are the most highly skewed. The second most highly skewed group is persons aged 22 to 26 and the least is children 13 and under. This data indicates that a relatively small number of people are accounting for a disproportionate share of costs, suggesting that this might be an area to prioritize for the system plan.

### Table 22. Medi-Cal behavioral health care expenditures among current Medi-Cal beneficiaries by demographic category 2009

| Characteristics | Any Use | | Total Expenditure | Median Expenditure Per User | Average Expenditure Per User |
|---|---|---|---|---|---|
| | N | % | | | |
| **Total** | 564,480 | 100% | $3,809,008,639 | $1,410 | $6,748 |
| **Demographics** | | | | | |
| **Age** | | | | | |
| **0-13** | 121,286 | 21% | $643,313,125 | $1,962 | $5,304 |
| **14-17** | 74,104 | 13% | $522,963,765 | $2,215 | $7,057 |
| **18-21** | 30,035 | 5% | $192,246,065 | $1,403 | $6,401 |
| **22-26** | 24,875 | 4% | $168,631,165 | $929 | $6,779 |
| **27-64** | 280,653 | 50% | $1,989,894,079 | $1,201 | $7,090 |
| **65+** | 33,458 | 6% | $291,813,612 | $731 | $8,722 |
| **Gender** | | | | | |
| **Male** | 274,044 | 49% | $2,054,228,544 | $1,678 | $7,496 |
| **Female** | 290,436 | 51% | $1,754,780,095 | $1,207 | $6,042 |
| **Race / Ethnicity** | | | | | |
| **White-NH** | 169,138 | 30% | $1,466,265,916 | $1,448 | $8,669 |
| **African American-NH** | 61,543 | 11% | $573,417,157 | $1,769 | $9,317 |
| **Asian-NH** | 7,500 | 1% | $59,324,940 | $889 | $7,910 |
| **Pacific Islander-NH** | 13,460 | 2% | $107,636,912 | $1,142 | $7,997 |
| **Native-NH** | 3,154 | 1% | $24,144,952 | $1,394 | $7,655 |
| **Other** | 186,747 | 33% | $799,843,420 | $1,375 | $4,283 |
| **Hispanic** | 117,863 | 21% | $736,079,849 | $1,337 | $6,245 |
| **Unknown/Not Reported** | 4,898 | 1% | $42,252,237 | $1,410 | $8,626 |

## 8. Expenditures by service category 2009

Comparing categories of service use by median and average per person expenditure is a useful way of quickly detecting possible imbalances in the service system. Most striking about Table 23 is the very small per-person expenditure for mental health rehabilitation combined with the very significant proportion of the population (38 percent) who use this service. While mental health rehabilitation is something of a catchall, and therefore somewhat more difficult to assess for effectiveness, it would be worthwhile to determine whether it should be promoted as an offset for other more costly services. Mental health rehabilitation also has the value of being desirable from the perspective of consumers as it promotes community-based connections. Of course, outpatient expenditures, representing 38 percent of the total, is a standard target for both quality improvement and cost savings. If it is found that mental health rehabilitation serves to reduce hospitalization even to a relatively small degree in the California behavioral health system, greater utilization would be very cost effective.

### Table 23. Expenditures by service category 2009

| Service Categories | Any Use | | Total Expenditure | Median Expenditure Per User | Average Expenditure Per User |
|---|---|---|---|---|---|
| | N | % | | | |
| **Residential** | 388 | 0.1% | $4,261,872 | -- | $10,984 |
| **Emergency** | 74,121 | 13% | $63,955,698 | -- | $863 |
| **Hospital/Inpatient** | 67,576 | 12% | $1,414,862,390 | -- | $20,937 |
| **Mental Health Treatment Outpatient** | 419,371 | 74% | $1,660,470,323 | -- | $3,959 |
| **Mental Health Rehabilitation** | 215,199 | 38% | $228,056,014 | -- | $1,060 |
| **Substance Use Services** | 91,833 | 16% | $387,482,774 | -- | $4,219 |

## 9. Expenditures by Medi-Cal eligibility category 2009

Table 24 provides information about behavioral health expenditures for the various Med-Cal eligibility categories. Of note here is the considerable variability in the average cost per person, ranging by a factor of ten, from Other Eligibility Categories for ≥65 to Foster Care. The category of Other Eligibility Categories for ≥65 particularly calls for attention as being highly skewed with a per-person median of $313 and an average of $12,504 indicating the influence of a few very high cost recipients. Because of the small size of this group, these high users have relatively little impact on overall expenditures; at two percent of the entire population, they contribute to 3 percent of overall expenditures. Given that the data analysis for this population does not include Medicare claims, full conclusions cannot be reached. Foster Care, on the other hand, is a significant, disproportionate driver of expenditures; though only 8 percent of the population, this group accounts for 29 percent of the expenditures, making it a potential priority for prioritization in system planning.

### Table 24. Expenditures by eligibility category 2009

| Characteristics | Any Use | | Total Expenditure | Median Expenditure Per User | Average Expenditure Per User |
|---|---|---|---|---|---|
| | N | % | | | |
| **Medicaid Eligibility Categories** | | | | | |
| **CalWorks (TANF)** | 6,224 | 1% | $26,626,870 | $740 | $4,278 |
| **SSI/SSP <65** | 229,264 | 41% | $1,917,333,207 | $1,563 | $8,363 |
| **SSI/SSP ≥ 65** | 7,988 | 1% | $57,509,586 | $562 | $7,199 |
| **Other Eligibility Categories for ≥65** | 9,317 | 2% | $116,504,188 | $313 | $12,504 |
| **Foster Care** | 44,875 | 8% | $396,082,149 | $3,052 | $8,826 |
| **AFDC** | 171,002 | 30% | $642,983,256 | $1,153 | $3,760 |
| **Other Disabled** | 40,107 | 7% | $384,008,371 | $1,346 | $9,575 |
| **Other Child/Family** | 35,660 | 6% | $166,691,579 | $1,184 | $4,674 |
| **Unknown** | 172 | 0% | $647,098 | $595 | $3,762 |
| **All Remaining Other Eligibility Categories** | 19,872 | 4% | $100,629,494 | $1,437 | $5,064 |

### 10. Expenditures by diagnostic group 2009

As shown in Table 25 below, the SMI population, not surprisingly given its proportion of the total behavioral health population, is the category accounting for the greatest expenditures. For all categories, differences between per-person averages and medians indicate the presence of sub-groups of high cost individuals. This is particularly notable in the case of persons with co-occurring disorders, for whom the per-person average expenditure is the highest of any category. The contribution of this group to overall expenditures at 20 percent is proportionate to their representation, however.

These figures do not suggest that any one diagnostic group should be a prioritized for quality or cost strategies; but rather that there is a sub-group of high cost individuals across all of these categories that can be the focus of prioritization for system planning.

### Table 25. Expenditures by diagnostic group 2009

| Characteristics | Any Use | | Total Expenditure | Median Expenditure Per User | Average Expenditure Per User |
|---|---|---|---|---|---|
| | N | % | | | |
| **SMI** | 255,603 | 45% | $2,160,752,687 | $1,410 | $8,454 |
| **SED** | 99,661 | 18% | $801,650,998 | $2,859 | $8,044 |
| **Substance Use Only** | 61,613 | 11% | $292,283,905 | $950 | $4,744 |
| **Other BH Adult** | 62,679 | 11% | $220,060,092 | $458 | $3,511 |
| **Other BH Youth** | 84,925 | 15% | $334,268,116 | $1,672 | $3,936 |
| **Special Populations** | | | | | |
| **Co-Occurring Mental Health/SUD** | 99,408 | 18% | $976,876,124 | $1,924 | $9,827 |
| **No outpatient MH/SUD service received** | 28,840 | 5% | $216,420,541 | $2,302 | $7,504 |

## G. PERFORMANCE (HEDIS MEASURES)

### 1. Time from hospital discharge to follow-up outpatient appointment

The analysis for this report included data on several behavioral health specific HEDIS measures of system performance reported by Medi-Cal as required by CMS regulations. The first of these measures is time from discharge to outpatient follow-up appointment, considered a measure of quality in continuity of care. Time to follow up is measured according to 5 time periods: 0 to 7 days, 8 to 14 days, 15-30 days, and no follow up.

Table 26 presents trends over the three year period for all Medi-Cal behavioral health inpatient service recipients, indicating very significant improvement, with the proportion having follow-up appointments within 7 days increasing from 58 percent in 2007 to 70 percent in 2009, and the number with no contact declining from 23 percent to 16 percent.

As with all quality improvement initiatives, of course, there is always room for better performance and the 16 percent with no follow up appointment might be an area for quality improvement. .

### Table 26. Summary data on time from hospital discharge to receipt of Medi-Cal outpatient behavioral health service 2007-2009

| Years | Total Discharge | 0-7 Days | | 8-14 Days | | 15-30 Days | | 30+ Days | | No Contact | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | N | N | % | N | % | N | % | N | % | N | % |
| **2007** | 118,807 | 69,007 | 58% | 8,074 | 7% | 6,651 | 6% | 7,422 | 6% | 27,653 | 23% |
| **2008** | 155,119 | 107,104 | 69% | 7,602 | 5% | 6,440 | 4% | 7,482 | 5% | 26,491 | 17% |
| **2009** | 161,836 | 113,311 | 70% | 7,771 | 5% | 6,645 | 4% | 7,466 | 5% | 26,643 | 16% |

Table 27 below provides information about time to follow up appointment broken out by demographic category, Medicaid eligibility status, and diagnostic group for 2009. (The same detail for 2007 and 2008 is provided in the Appendix A, Tables 8a, 8b and 8c).

## 2. Demographics

Time to first appointment varies little among demographic categories, with the single exception of the age group of persons 65 and older, for whom the rate of appointments within 7 days is only about half that of other age groups and a rate of no follow up that is nearly three times greater, a potential quality of care issue that certainly calls for further investigation.

## 3. Eligibility groups

There is little variation in rates among ethnic groups but more so among eligibility categories, where the rate for appointments within 7 days ranges from 36 percent for the relatively small TANF group to 76 percent for the under 65 SSI/SSP <65 group, which constitutes the larger number of discharges by a considerable margin, and 77 percent for the fewer foster care group. Consistent with differences among demographic categories, eligibility groups that are comprised of elderly people have lower rates of follow up within 7 days as reported within the Medicaid data set. This variation is conceivably related to variability among the groups in the likelihood of being engaged in outpatient treatment prior to hospitalization and potentially impacted by some follow-up claims being paid under Medicare.

## 4. Diagnostic groups

Most striking here is the very low rate of follow up for the (relatively few) discharges in the SUD category, consistent with the low penetration rates for this group and a matter of concern because of the very high relapse rate for this population.

## Table 27. Detailed data on time from hospital discharge to receipt of Medi-Cal outpatient behavioral health service 2009

| Characteristics | Total Discharge N | 0-7 Days | | 8-14 Days | | 15-30 Days | | 30+ Days | | No Contact | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | N | % | N | % | N | % | N | % | N | % |
| **Total** | **161,836** | **113,311** | **70%** | **7,771** | **5%** | **6,645** | **4%** | **7,466** | **5%** | **26,643** | **16%** |
| **Demographics** | | | | | | | | | | | |
| **Age** | | | | | | | | | | | |
| **0-13** | 7,210 | 5,120 | 71% | 381 | 5% | 229 | 3% | 213 | 3% | 1,267 | 18% |
| **14-17** | 10,098 | 6,685 | 66% | 660 | 7% | 507 | 5% | 554 | 5% | 1,692 | 17% |
| **18-21** | 8,800 | 6,023 | 68% | 398 | 5% | 357 | 4% | 400 | 5% | 1,622 | 18% |
| **22-26** | 13,299 | 9,792 | 74% | 549 | 4% | 468 | 4% | 663 | 5% | 1,827 | 14% |
| **27-64** | 115,003 | 83,423 | 73% | 5,383 | 5% | 4,758 | 4% | 5,342 | 5% | 16,097 | 14% |
| **65+** | 7,415 | 2,268 | 31% | 400 | 5% | 326 | 4% | 294 | 4% | 4,127 | 56% |
| **Gender** | | | | | | | | | | | |
| **Male** | 88,824 | 64,712 | 73% | 3,965 | 4% | 3,291 | 4% | 3,794 | 4% | 13,062 | 15% |
| **Female** | 73,012 | 48,599 | 67% | 3,806 | 5% | 3,354 | 5% | 3,672 | 5% | 13,581 | 19% |
| **Race / Ethnicity** | | | | | | | | | | | |
| **White-NH** | 50,322 | 32,157 | 64% | 2,731 | 5% | 2,337 | 5% | 2,601 | 5% | 10,496 | 21% |
| **African American-NH** | 22,771 | 14,751 | 65% | 1,324 | 6% | 1,128 | 5% | 1,434 | 6% | 4,134 | 18% |
| **Asian-NH** | 1,457 | 855 | 59% | 82 | 6% | 55 | 4% | 52 | 4% | 413 | 28% |
| **Pacific Islander-NH** | 3,748 | 2,593 | 69% | 190 | 5% | 211 | 6% | 157 | 4% | 597 | 16% |
| **Native-NH** | 539 | 316 | 59% | 32 | 6% | 48 | 9% | 36 | 7% | 107 | 20% |
| **Other** | 60,702 | 49,282 | 81% | 2,037 | 3% | 1,681 | 3% | 1,850 | 3% | 5,852 | 10% |
| **Hispanic** | 20,353 | 12,112 | 60% | 1,275 | 6% | 1,100 | 5% | 1,262 | 6% | 4,604 | 23% |
| **Unknown/ NR** | 1,944 | 1,245 | 64% | 100 | 5% | 85 | 4% | 74 | 4% | 440 | 23% |
| **Medicaid Eligibility Categories** | | | | | | | | | | | |
| **CalWorks (TANF)** | 904 | 329 | 36% | 46 | 5% | 40 | 4% | 41 | 5% | 448 | 50% |
| **SSI/SSP <65** | 110,453 | 84,020 | 76% | 5,120 | 5% | 4,408 | 4% | 4,916 | 4% | 11,989 | 11% |
| **SSI/SSP ≥ 65** | 897 | 203 | 23% | 49 | 5% | 52 | 6% | 29 | 3% | 564 | 63% |
| **Other Eligibility Categories for ≥65** | 3,494 | 698 | 20% | 150 | 4% | 115 | 3% | 95 | 3% | 2,436 | 70% |
| **Foster Care** | 5,809 | 4,479 | 77% | 299 | 5% | 208 | 4% | 188 | 3% | 635 | 11% |
| **AFDC** | 15,608 | 8,384 | 54% | 1,053 | 7% | 885 | 6% | 1,019 | 7% | 4,267 | 27% |
| **Other Disabled** | 18,062 | 11,849 | 66% | 753 | 4% | 675 | 4% | 830 | 5% | 3,955 | 22% |
| **Other Child/Family** | 3,643 | 2,120 | 58% | 206 | 6% | 168 | 5% | 201 | 6% | 948 | 26% |
| **Unknown** | 1 | 0 | 0% | 0 | 0% | 0 | 0% | 0 | 0% | 1 | 100% |
| **All Remaining Other Eligibility Categories** | 2,965 | 1,229 | 41% | 95 | 3% | 94 | 3% | 147 | 5% | 1,400 | 47% |
| **Diagnostic Group** | | | | | | | | | | | |
| **SMI** | 137,868 | 99,433 | 72% | 6,592 | 5% | 5,762 | 4% | 6,507 | 5% | 19,574 | 14% |
| **SED** | 13,828 | 10,208 | 74% | 872 | 6% | 606 | 4% | 593 | 4% | 1,549 | 11% |
| **Substance Use Only** | 1,280 | 396 | 31% | 18 | 1% | 17 | 1% | 49 | 4% | 800 | 63% |
| **Other BH Adult** | 788 | 393 | 50% | 25 | 3% | 24 | 3% | 27 | 3% | 319 | 40% |
| **Other BH Youth** | 3,302 | 1,536 | 47% | 161 | 5% | 124 | 4% | 158 | 5% | 1,323 | 40% |
| **Special Populations** | | | | | | | | | | | |
| **Co-Occurring Mental Health/SUD** | 44,961 | 33,425 | 74% | 2,246 | 5% | 1,973 | 4% | 2,385 | 5% | 4,932 | 11% |

## 5. Hospital and emergency department readmission rates for behavioral health

Short term readmission rates are considered a proxy for the quality of the inpatient treatment and/ or outpatient follow-up. Table 28 shows that 30 day readmission rates have remained stable across the three year period. Given the high cost of inpatient care and the possibility of a correlation with quality of care this is an area that always bears scrutiny to potential improvement.

### Table 28. Summary data on hospital and emergency department readmissions for behavioral health within 30 days of inpatient discharge for a behavioral health condition

| Years | Unique Individuals with Inpatient Admission | Mental Health | | | |
|---|---|---|---|---|---|
| | | Inpatient | | Emergency Department | |
| | N | N | % | N | % |
| **2007** | 76,790 | 17,714 | 23% | 4,171 | 5% |
| **2008** | 88,486 | 17,624 | 20% | 4,428 | 5% |
| **2009** | 79,342 | 18,345 | 23% | 4,841 | 6% |

## 6. Demographic categories

As with figures for time to follow up appointment, there is little variation among ethnic groups. If readmission rates are truly a proxy measure for quality of care, this would suggest less concern about disparities, although this evidence alone is not sufficient as a basis for that judgment.

**Table 29. Demographic characteristics – Hospital and emergency department readmissions within 30 days of inpatient discharge for a behavioral health condition 2009**

| Characteristics | Unique Individuals with Inpatient Admission | Mental Health | | | |
|---|---|---|---|---|---|
| | | Inpatient | | Emergency Department | |
| | N | N | %* | N | %* |
| **Total** | **79,342** | **18,345** | **23%** | **4,841** | **6%** |
| **Demographics** | | | | | |
| **Age** | | | | | |
| **0-13** | 4,072 | 511 | 13% | 234 | 6% |
| **14-17** | 7,340 | 1,167 | 16% | 481 | 7% |
| **18-21** | 4,946 | 1,047 | 21% | 279 | 6% |
| **22-26** | 6,355 | 1,647 | 26% | 463 | 7% |
| **27-64** | 52,430 | 13,483 | 26% | 3,316 | 6% |
| **65+** | 4,189 | 490 | 12% | 68 | 2% |
| **Gender** | | | | | |
| **Male** | 41,071 | 10,348 | 25% | 2,474 | 6% |
| **Female** | 38,271 | 7,997 | 21% | 2,367 | 6% |
| **Race / Ethnicity** | | | | | |
| **White-NH** | 26,987 | 5,868 | 22% | 1,658 | 6% |
| **African American-NH** | 12,921 | 3,575 | 28% | 568 | 4% |
| **Asian-NH** | 819 | 134 | 16% | 28 | 3% |
| **Pacific Islander-NH** | 1,752 | 390 | 22% | 62 | 4% |
| **Native-NH** | 384 | 75 | 20% | 19 | 5% |
| **Other** | 22,369 | 5,547 | 25% | 1,967 | 9% |
| **Hispanic** | 13,101 | 2,504 | 19% | 491 | 4% |
| **Unknown/Not Reported** | 1,009 | 252 | 25% | 48 | 5% |

*These percentages reflect a lower valid N – Admissions with no discharge before December 1st and admissions less than 1 day from prior discharge have been eliminated.

## 7. Eligibility

As with time to follow up appoint there is more variability among eligibility groups, although interestingly the two rates, time to follow-up and readmission, against expectation, appear to be positively correlated; that is, while early follow up after discharge is presumed to reduce readmission, in this case it appears the opposite is the case. This is a very complex relationship, however, that would require a good deal of careful research to untangle.

### Table 30. Eligibility category – Hospital and emergency department readmissions within 30 days of inpatient discharge for a behavioral health condition 2009

| Eligibility Category | Unique Individuals with Inpatient Admission | Mental Health | | | |
|---|---|---|---|---|---|
| | | Inpatient | | Emergency Department | |
| | N | N | %* | N | %* |
| **CalWorks (TANF)** | 707 | 78 | 11% | 20 | 3% |
| **SSI/SSP <65** | 48,363 | 13,341 | 28% | 3,321 | 7% |
| **SSI/SSP ≥ 65** | 657 | 57 | 9% | 10 | 2% |
| **Other Eligibility Categories for ≥65** | 1,831 | 240 | 13% | 11 | 1% |
| **Foster Care** | 3,600 | 700 | 19% | 253 | 7% |
| **AFDC** | 10,947 | 1,329 | 12% | 518 | 5% |
| **Other Disabled** | 8,438 | 1,920 | 23% | 488 | 6% |
| **Other Child/Family** | 2,540 | 351 | 14% | 130 | 5% |
| **Unknown** | 1 | 0 | 0% | 0 | 0% |
| **Other Eligibility Categories** | 2,258 | 329 | 15% | 90 | 4% |

*These percentages reflect a lower valid N – Admissions with no discharge before December 1st and admissions less than 1 day from prior discharge have been eliminated.

### 8. Diagnostic group

Unsurprisingly, the SMI population, followed by SED has the highest inpatient readmission rates. Perhaps more unexpected is the low rate for SUD, although there may be a number of reasons why this would be the case, including the types of services available.

### Table 31. Diagnostic group-- Hospital and emergency department readmissions within 30 days of inpatient discharge for a behavioral health condition 2009

| Characteristics | Unique Individuals with Inpatient Admission | Mental Health | | | |
|---|---|---|---|---|---|
| | | Inpatient | | Emergency Department | |
| | N | N | %* | N | %* |
| **SMI** | 63,799 | 16,289 | 26% | 4,057 | 6% |
| **SED** | 8,926 | 1,568 | 18% | 637 | 7% |
| **Substance Use Only** | 658 | 54 | 8% | 9 | 1% |
| **Other BH Adult** | 3,542 | 326 | 9% | 60 | 2% |
| **Other BH Youth** | 2,417 | 108 | 5% | 78 | 3% |
| **Special Populations** | | | | | |
| **Co-Occurring Mental Health/SUD** | 23,159 | 8,222 | 36% | 1,621 | 7% |
| **Service Utilization** | | | | | |
| **High MH/SUD Medicaid service utilizer** | 40,876 | 14,945 | 37% | 3,291 | 8% |

*These percentages reflect a lower valid N – Admissions with no discharge before December 1st and admissions less than 1 day from prior discharge have been eliminated.

## H. CONCLUSION

The above data presents a comprehensive picture of the "state of the state" for Medi-Cal behavioral health participants, service utilization and expenditures. This data provides a firm basis for service system

planning. For example, data on utilization and costs for the non-specialty plan participants can assist DHCS to plan for the Medi-Cal expansion population. Also, system performance and cost data can assist DHCS to identify management priorities for health plan purchasing and administration congruent with the expansion population, implementation of Health Homes, and other initiatives. Finally, the data can assist DHCS identify issues related to the integration of the mental health and substance use services within DHCS.

By far the largest single eligibility category represented among behavioral health service recipients is that of SSI/SSP under age 65, at 41-42% across the three years. This group is likely highly represented in the DMH Client and Services Information (CSI) database as well, and thus the CSI data on level of functioning and dynamic movement within the system can be useful for planning for this population. Most of these individuals are not similar to or represented in the Medi-Cal expansion population, but they are represented in the SPD population being enrolled in physical health plans, and they probably are also representative of some of the clientele of the Delivery System Reform Incentive Payments (DSRIP) Program initiatives. Many of these individuals may be included in health homes if California elects to pursue that opportunity. These are examples of behavioral health system planning issues currently faced by DHCS in addition to preparing for the expansion population.

The number of persons receiving Medi-Cal funded behavioral health services grew slightly over the three year period (about 3 percent from 2007 to 2008 and 4 percent from 2008 to 2009), and the distribution of recipients by eligibility category was nearly constant across the three years. While the enrollee population changed little, the costs behavioral health services changed substantially (almost 17% between 2007 and 2009). Overall average costs per service participant increased by just over 10%. This occurred despite a very positive shift of resources away from inpatient services and towards outpatient services between 2007 and 2009. This cost increase might reflect improved quality in the system (e.g., increased continuity of care resulting from better provider reimbursements), but it may also represent opportunities for more prudent purchasing in the system.

Penetration rates for mental health services in the Medi-Cal program are generally low, although this is consistent with the experience of Medicaid behavioral health programs throughout the United States. Of particular concern is the penetration rate for substance use services, which is only 3% for the Medi-Cal program. The Medi-Cal penetration rate for people meeting the broad definition of mental illness (not including people with serious mental illness) was 2%. For the SMI population the penetration rate was 22%, and for youth with SED the penetration rate was 14%. Nonetheless, these low penetration rates might also be a reflection of the relatively minimal behavioral health benefits for Medi-Cal participants not accessing services through the specialty plans.

One phenomenon identified in the Medi-Cal data is the large number of people receiving three or fewer outpatient or rehabilitation visits. This is common in other states as well, and frequently is seen as an indicator that a substantial number of people are not fully engaging in either mental health or substance use treatment. This trend seems to be verified by the very large differences between the median and average costs per participant for most age and eligibility categories. This may be reflective of people moving into and out of Medi-Cal eligibility, a factor that should be mitigated after 2014, but it also could indicate a need for quality management and performance measurement directed at engagement in outpatient services. Because the initial intake and service planning is the most intensive component of outpatient services, "losing" participants after three visits is quite inefficient for the overall system.

The Medi-Cal data show good and/or improving performance in the system. The shift from inpatient services in one indicator of positive developments in the system. The increasing proportion of participants that receive an outpatient follow up after inpatient hospitalization is another indicator of improving performance. In addition, the relatively stable rate of behavioral health presentations in emergency departments may be an indicator that the reduction in overall hospitalization rates has not negatively impacted people in the system.

Every state, including California, has focused on high-cost users of Medicaid services. The above data confirms that the top 20% of behavioral health services participants are using 82% of the resources. The top 5% are using 55% of the resources. This is only behavioral health services costs: it does not include what can be expected to be corresponding high physical health care costs for these heavy-user populations as well. The fact that high users are major cost-drivers in the Medi-Cal program indicates a need to focus management and performance interventions for this group as well as for the expansion population.

This chapter presents a broad overview of the current Medi-Cal behavioral health system. The data also assists to identify issue areas for system enhancements and improvements. As the project transforms from needs assessment into the planning phase, we expect that more detailed analysis of certain aspects of this data will be useful.

# V. ANALYSIS OF THE DADP CALIFORNIA OUTCOMES MEASUREMENT SYSTEM TREATMENT (CALOMS TX) DATA

## A. RELATION TO THE 1115 TERMS AND CONDITIONS

The California 1115 Bridge to Reform Waiver Special Terms and Conditions call for a detailed analysis of behavioral health needs and gaps in California, followed by a Services System Plan. Although the Terms and Conditions focus primarily on Medi-Cal, it is understood that an assessment of needs and gaps and the development of a behavioral health system plan cannot occur without also considering non-Medi-Cal systems, services, providers, and consumers. For both mental health and substance use services, the state- and county-level services systems funded with state funds and federal block grants represent key resources for consumers. They also represent systems that currently fill gaps and provide safety net services for current Medi-Cal recipients as well as for people not enrolled in Medi-Cal. The data about substance use services access, utilization and practice patterns are critical to establishing a complete and accurate baseline for future behavioral health system planning.

## B. SPECIFIC QUESTIONS TO BE ADDRESSED IN THIS CHAPTER

California Outcomes Measurement System Treatment (CalOMS Tx) data supplied by the Department of Alcohol and Drug Programs (DADP) permits analysis of a number of key questions related to substance use services in California. These include:

7. What are the characteristics of people accessing DADP services in California?
8. Are there differences in substance use service utilization based on these characteristics?
9. What patterns can be described relative to single episodes of care versus multiple (continuous and recurring) episodes of care in substance use services?
10. What are the average lengths of stay in services for different service modalities?
11. What proportion of service participants complete treatment?
12. What are the average wait times for accessing substance use services?
13. What patterns can be discerned related to resource utilization within the ADP system?
14. How do California's DADP service access and utilization patterns compare with national averages?

## C. RELATIONSHIP TO OTHER SECTIONS OF THE ASSESSMENT AND PLAN

The analysis of substance use service access and utilization relates directly to the companion analyses of service access and utilization within the Department of Mental Health (DMH) and Medi-Cal programs.

In combination, analysis of data from these three systems presents the most objective, quantifiable picture possible of the current behavioral health system in California. Information from this chapter also provides context and depth to other portions of the overall needs and gaps analysis. For example, the chapters on special populations and on provider capacity were partially informed by information from this Chapter.

As a baseline for future system planning, the DADP data provides a starting point for addressing system gaps and for planning for coordinated use on Medi-Cal and non-Medi-Cal resources in the future. In addition, some of the data can be used to estimate Medi-Cal substance use service utilization for the expansion population after 2014.

## D. METHODS

The methodology employed to analyze and synthesize DADP CalOMS Tx data covering fiscal years 2007–2010 included coding and recoding the data along several dimensions: (a) time (fiscal year); (b) demographic characteristics (gender, age, race and ethnicity, etc.); (c) treatment service type or modality (outpatient, detox, long-term residential, etc.); and (d) proxy best practice indicators (days waited to enter treatment, length of stay, discharge status, and recurrent and continuous users of the treatment system). The project team examined these dimensions in relation to the following types of variables: Medi-Cal beneficiary status, referral source (individual, criminal justice, etc.); substance use conditions (primary substance use, poly drug use, needle use); other health-related services conditions (physical health, mental health, etc.); and social conditions (living with someone who uses substances, serious conflict with family members). Generally, analyses were conducted by admissions; some analyses were conducted at the individual level.

The tables used in the body of this report were built from the source tables (located in the Appendix B) that were created from the analyses. These source tables include an overall system snapshot of specific variables of interest, such as treatment service type to elicit indicators of service provision and resource use and length of stay to elicit proxy indicators of best practice.

## E. CURRENT SUBSTANCE USE TREATMENT SYSTEM DESCRIPTION

This report provides a description of the publicly funded substance use treatment system in the state of California covering fiscal years 2007–2010. Data presentation and discussion will focus on the following: (a) demographic characteristics; (b) comparisons of Medi-Cal and non-Medi-Cal treatment populations; (c) best practice indicators (days waited to enter treatment, length of stay, and discharge status) by treatment service type (outpatient, residential, etc.) and other conditions; (d) treatment

populations with particular resource impacts on the system (recurrent users of the system, users that received a continuum of treatment services, homeless, needle users, criminal justice referrals, high-cost service types, and cross-system service needs); and (e) other observations of the data.

## 1. Demographic characteristics

Table 32 presents basic demographics of the population accessing substance use treatment across fiscal years 2007–2010. Basic trends across this 4-year time period indicate increased treatment access for adolescents, persons who are homeless, and Medi-Cal beneficiary populations and decreased access for the criminal justice involved population (attributed to a decrease in treatment funding for this population statewide) and the currently employed.

Table 33 compares basic demographics of California's treatment population from 2007–2010 with a national treatment population from 1997-2007[42]. The table indicates that the treatment population in California had a higher percentage of females, adolescents, clients with less than a high school diploma, and criminal justice referrals and, as expected based on population rates, a much higher percentage of Hispanic clients.

[42] Substance Use and Mental Health Services Administration (2009a), Office of Applied Studies. *Treatment Episode Data Set (TEDS): 1997-2007. National Admissions to Substance Use Treatment Services*, DASIS Series: S-47, DHHS Publication No. (SMA) 09-4379, Rockville, MD.

## Table 32. Demographic characteristics by fiscal year

| Characteristics | Total | FY 2007 | FY 2008 | FY 2009 | FY 2010 |
|---|---|---|---|---|---|
| **Total Admissions** | **841,610** | **224,396** | **220,711** | **214,212** | **182,291** |
| **Admissions (% of total across FYs 2007-2010)** | 100% | 27% | 26% | 25% | 22% |
| **Demographics** | | | | | |
| **Female** | 37% | 36% | 36% | 36% | 37% |
| **< 18** | 11% | 10% | 11% | 11% | 12% |
| **Hispanic (Any race)** | 34% | 33% | 34% | 34% | 33% |
| **White (Non-Hispanic)** | 43% | 44% | 43% | 42% | 43% |
| **Black (Non-Hispanic)** | 16% | 15% | 15% | 16% | 16% |
| **Multi-race (Non-Hispanic)** | 2% | 2% | 2% | 2% | 2% |
| **Other race[43] (Non-Hispanic)** | 6% | 6% | 6% | 6% | 6% |
| **Pregnant** | 2% | 2% | 2% | 2% | 2% |
| **Homeless** | 19% | 18% | 18% | 19% | 20% |
| **< High School Diploma** | 42% | 41% | 42% | 42% | 42% |
| **Criminal Justice Involvement** | 55% | 57% | 57% | 55% | 50% |
| **Employed (past 30 days)** | 22% | 26% | 24% | 19% | 16% |
| **U.S. Veteran** | 4% | 4% | 4% | 4% | 4% |
| **Medi-Cal Beneficiary[44]** | 30% | 29% | 29% | 30% | 33% |

## Table 33. California's treatment population compared to a national treatment population

| Characteristics | California (2007–2010) | National (1997–2007) |
|---|---|---|
| **Female** | 37% | 32% |
| **< 18** | 11% | 7% |
| **Hispanic (Any race)** | 34% | 14% |
| **White (Non-Hispanic)** | 43% | 60% |
| **Black (Non-Hispanic)** | 16% | 21% |
| **Other race[45] (Non-Hispanic)** | 6% | 5% |
| **< High School Diploma** | 42% | 32% |
| **Criminal Justice Referral[46]** | 41% | 37% |

Tables 34 through 39 below present demographics of the treatment population along six dimensions: (1) treatment service type received; (2) comparison of treatment service type received between California's treatment population from 2007–2010 with national TEDS (Treatment Episode Data Set) data from 2007; (3) recurrent and continuous users of the treatment system; (4) days waited to enter treatment; (5) general

[43] All other races combined.
[44] Medi-Cal beneficiary status varies by age group; clients under 18 and over 64 are more than twice as likely to be Medi-Cal beneficiaries.
[45] All other races combined (in this table it also includes multi-race).
[46] See Table 1a in Appendix B; represents a sum of all criminal justice referrals (SACPA or Court System).

length of stay in treatment (regardless of treatment service type); and (6) discharge status[47]. Table 34 indicates that the most common modalities of treatment provided, based on admissions, are outpatient (64% total, includes regular outpatient [52%], day treatment [5%], and narcotic maintenance treatment [7%]); long term residential (18%); and detox (17% total, includes non-narcotic detox [12%] and narcotic detox [5%]). Female clients have a high rate of placement into day treatment; adolescents into outpatient and day treatment settings[48]; homeless individuals into detox and short- and long-term residential treatment settings; criminal justice involved clients into outpatient and short- and long-term residential treatment settings; Medi-Cal clients into day treatment and narcotic treatment maintenance; U.S. veterans into detox; and white (non-Hispanic) clients into detox, short and long term residential, and both narcotic-specific treatment settings.

[47] In this report, discharge status "completed treatment" (as measured simply by the CalOMS TX discharge variable "discharge status") is used similarly for detoxification and the other outpatient and residential services to equate to treatment success. DADP notes that "treatment completion" does not have the same meaning for detox as for outpatient or residential services. DADP indicates that a client can not "Complete treatment" without successfully transferring from detox to another service and also successfully discharging from that service.

[48] As shown in Table 3b in Appendix B, adolescent clients who are non-MediCal beneficiaries have an unexpectedly high rate of placement into short-term residential treatment.

## Table 34. Demographic characteristics by treatment service type

| Characteristics | Total | OP | Day Tx | Detox | ≤ 30 day Res | > 30 day Res | Narcotic Tx Maint. | Narcotic Tx Detox |
|---|---|---|---|---|---|---|---|---|
| **Total Admissions** | **841,610** | **435,715** | **41,478** | **104,079** | **11,212** | **149,975** | **61,840** | **37,311** |
| **Admissions (% of total by service types)** | 100% | 52% | 5% | 12% | 1% | 18% | 7% | 5% |
| **Demographics** | | | | | | | | |
| **Female** | 37% | 36% | 60% | 27% | 32% | 40% | 37% | 30% |
| **< 18** | 11% | 17% | 31% | 0% | 11% | 2% | 0% | 0% |
| **Hispanic (Any race)** | 34% | 39% | 40% | 20% | 27% | 29% | 33% | 32% |
| **White (Non-Hispanic)** | 43% | 38% | 32% | 54% | 57% | 47% | 49% | 53% |
| **Black (Non-Hispanic)** | 16% | 15% | 20% | 20% | 9% | 17% | 12% | 9% |
| **Multi-race (Non-Hispanic)** | 2% | 2% | 2% | 1% | 1% | 2% | 1% | 1% |
| **Other race[49] (Non-Hispanic)** | 6% | 7% | 6% | 5% | 6% | 6% | 6% | 5% |
| **Pregnant** | 2% | 2% | 6% | 1% | 1% | 3% | 2% | 0% |
| **Homeless** | 19% | 7% | 8% | 51% | 26% | 40% | 6% | 11% |
| **< High School Diploma** | 42% | 47% | 57% | 26% | 38% | 38% | 36% | 35% |
| **Criminal Justice Involvement** | 55% | 68% | 47% | 29% | 63% | 64% | 17% | 16% |
| **Employed (past 30 days)** | 22% | 27% | 14% | 15% | 15% | 10% | 26% | 28% |
| **U.S. Veteran** | 4% | 3% | 2% | 8% | 4% | 5% | 4% | 4% |
| **Medi-Cal Beneficiary** | 30% | 35% | 53% | 19% | 17% | 16% | 44% | 20% |

Table 35, below, compares the modality of treatment services provided to clients in California from 2007–2010 with services provided to a national treatment population in 2007[50] . Compared to a national treatment population, California provided slightly more outpatient services and slightly less detox services.

[49] All other races combined.
[50] Substance Use and Mental Health Services Administration (2009b), Office of Applied Studies. *Treatment Episode Data Set (TEDS) Highlights - - 2007 National Admissions to Substance Use Treatment Services*. OAS Series #S-45, HHS Publication No. (SMA) 09-4360, Rockville, MD.

### Table 35. Comparison of treatment service type: California and a national treatment population

| Characteristics | California (2007–2010) | National (2007) |
|---|---|---|
| **Outpatient (includes day and narcotic maintenance treatment)** | 64% | 62% |
| **Residential (short and long term)** | 19% | 18% |
| **Detox (includes narcotic-specific detox)** | 16% | 20% |

The project team was interested in how different treatment system users impact the system. The team developed codes based on individual clients' multiple admissions into treatment within the study period: admissions occurring within 30 days of a previous discharge were defined as continuous users (i.e., clients receiving a continuum of care) and admissions occurring more than 30 days from a previous discharge were defined as recurrent users (i.e., clients receiving frequent but disconnected and disjointed services). Table 36 displays some variability among demographic characteristics and use of the treatment system. Adolescent, Hispanic, Medi-Cal, and currently employed clients and clients with less than a high school diploma are more likely to be one-time users of the treatment system. Female clients are more likely to be continuous users or to have a combination of both continuous and recurrent use. Homeless clients are more likely to be recurrent users or to have a combination of continuous and recurrent use. White and criminal justice involved clients are more likely to use the system multiple times – white clients particularly as continuous users or with a combination of continuous and recurrent use and criminal justice involved clients particularly as recurrent users or with a combination of continuous and recurrent use. Criminal justice involved clients have the highest rate of recurrent use of the treatment system.

Table 37 indicates that, in general, adolescent and Medi-Cal clients enter treatment quickly while white, homeless, and criminal justice involved clients are more likely to experience longer wait times to get into treatment. However, as shown in a preceding table (Table 34), white, homeless, and criminal justice clients have higher rates of placement into short- and long-term residential treatment settings, which are the treatment service types with the longest wait times (see Appendix B, Table 3).

Table 38 indicates that length of stay in treatment[51] does not vary greatly by demographic characteristics. However, homeless clients, who have high rates of placement into detox and short- and long term residential treatment settings, are less likely to have lengths of stay longer than 90 days and criminal justice involved clients (despite high rates of placement into short and long term residential treatment) and Medi-Cal clients (who have high rates of placement into day treatment and narcotic maintenance

[51] Excluded from this analysis and any other length of stay analysis were cases where discharge date was missing

treatment) are more likely to have longer lengths of stay, 31-180 days and more than 180 days, respectively.

### Table 36. Demographic characteristics by recurrent and continuous users of the treatment system

| Characteristics | Total | Single Admission Only | Continuous Admissions[52] Only | Recurrent Admissions[53] Only | Mixed (Continuous & Recurrent) Admissions |
|---|---|---|---|---|---|
| **Total Individuals** | 243,563 | 154,323 | 28,918 | 41,521 | 18,801 |
| **Individuals (% of total across FYs 2007-2010)** | 100% | 63% | 12% | 17% | 8% |
| **Demographics at First Admission** | | | | | |
| **Female** | 35% | 33% | 41% | 34% | 40% |
| **< 18** | 15% | 19% | 8% | 9% | 3% |
| **Hispanic (Any race)** | 36% | 38% | 33% | 34% | 31% |
| **White (Non-Hispanic)** | 40% | 38% | 45% | 42% | 46% |
| **Black (Non-Hispanic)** | 15% | 15% | 14% | 15% | 15% |
| **Multi-race (Non-Hispanic)** | 2% | 2% | 2% | 2% | 2% |
| **Other race[54] (Non-Hispanic)** | 7% | 7% | 6% | 6% | 6% |
| **Pregnant** | 2% | 1% | 2% | 2% | 2% |
| **Homeless** | 15% | 13% | 15% | 17% | 21% |
| **< High School Diploma** | 45% | 48% | 39% | 42% | 37% |
| **Criminal Justice Involvement** | 57% | 55% | 55% | 64% | 61% |
| **Employed (past 30 days)** | 24% | 26% | 23% | 22% | 17% |
| **U.S. Veteran** | 4% | 4% | 4% | 4% | 4% |
| **Medi-Cal Beneficiary** | 31% | 33% | 29% | 29% | 27% |

[52] Continuous admissions are defined as any admission that is not the first admission for an individual and that are concurrent admissions or admissions within 30 days of a previous discharge.
[53] Recurrent admissions are defined as any admission that is not the first admission for an individual and that are more than 30 days from a previous discharge.
[54] All other races combined.

## Table 37. Demographic characteristics by days waited to enter treatment

| Characteristics | Total | 0 days | 1-3 days | 4-7 Days | 8-14 days | 15-30 days | > 30 Days |
|---|---|---|---|---|---|---|---|
| **Total Admissions** | **841,610** | **598,193** | **82,769** | **58,316** | **39,496** | **36,464** | **20,342** |
| **Admissions (% of total by days waited to enter treatment)** | 100% | 72% | 10% | 7% | 5% | 4% | 2% |
| **Demographics** | | | | | | | |
| **Female** | 37% | 36% | 37% | 37% | 36% | 36% | 38% |
| **< 18** | 11% | 13% | 4% | 5% | 4% | 4% | 4% |
| **Hispanic (Any race)** | 34% | 34% | 32% | 35% | 34% | 32% | 31% |
| **White (Non-Hispanic)** | 43% | 42% | 44% | 44% | 45% | 47% | 51% |
| **Black (Non-Hispanic)** | 16% | 17% | 16% | 13% | 13% | 12% | 10% |
| **Multi-race (Non-Hispanic)** | 2% | 2% | 2% | 2% | 2% | 2% | 2% |
| **Other race[55] (Non-Hispanic)** | 6% | 6% | 6% | 6% | 6% | 6% | 6% |
| **Pregnant** | 2% | 2% | 2% | 2% | 2% | 2% | 2% |
| **Homeless** | 19% | 17% | 25% | 22% | 24% | 23% | 23% |
| **< High School Diploma** | 42% | 43% | 39% | 40% | 38% | 38% | 37% |
| **Criminal Justice Involvement** | 55% | 52% | 55% | 61% | 63% | 69% | 76% |
| **Employed (past 30 days)** | 21% | 22% | 20% | 21% | 19% | 19% | 20% |
| **U.S. Veteran** | 4% | 4% | 4% | 4% | 4% | 5% | 4% |
| **Medi-Cal Beneficiary** | 30% | 33% | 24% | 24% | 21% | 19% | 18% |

[55] All other races combined.

## Table 38. Demographic characteristics by length of stay

| Characteristics | Total | 0 days | 1-15 days | 16-30 days | 31-60 days | 61-90 days | 91-120 Days | 121-150 days | 151-180 days | > 180 days |
|---|---|---|---|---|---|---|---|---|---|---|
| **Total Admissions** | 841,610 | 30,095 | 184,902 | 90,998 | 104,619 | 88,216 | 63,054 | 44,334 | 38,271 | 197,121 |
| **Admissions (% of total by length of stay)** | 100% | 4% | 22% | 11% | 12% | 10% | 7% | 5% | 5% | 23% |
| **Demographics** | | | | | | | | | | |
| **Female** | 37% | 36% | 33% | 35% | 38% | 36% | 36% | 37% | 38% | 40% |
| **< 18** | 11% | 7% | 3% | 8% | 11% | 12% | 16% | 17% | 15% | 15% |
| **Hispanic (Any race)** | 34% | 35% | 27% | 33% | 35% | 35% | 37% | 39% | 38% | 36% |
| **White (Non-Hispanic)** | 43% | 43% | 49% | 45% | 42% | 42% | 40% | 39% | 40% | 39% |
| **Black (Non-Hispanic)** | 16% | 15% | 17% | 14% | 15% | 15% | 14% | 14% | 14% | 17% |
| **Multi-race (Non-Hispanic)** | 2% | 2% | 1% | 2% | 2% | 2% | 2% | 2% | 2% | 2% |
| **Other race[56] (Non-Hispanic)** | 6% | 6% | 5% | 6% | 6% | 6% | 7% | 7% | 7% | 6% |
| **Pregnant** | 2% | 2% | 2% | 2% | 2% | 2% | 2% | 2% | 3% | 2% |
| **Homeless** | 19% | 20% | 36% | 18% | 16% | 18% | 13% | 11% | 12% | 11% |
| **< High School Diploma** | 42% | 42% | 34% | 41% | 44% | 43% | 45% | 46% | 45% | 45% |
| **Criminal Justice Involvement** | 53% | 53% | 39% | 52% | 62% | 64% | 65% | 64% | 63% | 50% |
| **Employed (past 30 days)** | 22% | 22% | 17% | 21% | 21% | 21% | 26% | 27% | 26% | 24% |
| **U.S. Veteran** | 4% | 4% | 5% | 4% | 3% | 3% | 3% | 3% | 3% | 3% |
| **Medi-Cal Beneficiary** | 30% | 28% | 22% | 26% | 28% | 26% | 29% | 32% | 31% | 42% |

[56] All other races combined.

Similar to length of stay, Table 39 indicates that discharge status does not vary greatly by demographic characteristics. However, Medi-Cal beneficiaries stand out as having lower rates of treatment completion despite being more likely to have longer lengths of stay (see Table 39); and criminal justice involved clients have a very high rate of discharge due to incarceration.

### Table 39. Demographic characteristics by discharge status

| Characteristics | Total | Treatment Completion | Non-Complete/ Satisfactory Progress | Non-Complete/ Unsatisfactory Progress | Incarceration |
|---|---|---|---|---|---|
| **Total Admissions** | **841,610** | **298,176** | **135,730** | **315,709** | **17,206** |
| **Admissions (% of total by discharge status)** | 100% | 39% | 18% | 41% | 2% |
| **Demographics** | | | | | |
| **Female** | 36% | 69% | 80% | 75% | 25% |
| **< 18** | 10% | 16% | 29% | 21% | 16% |
| **Hispanic (Any race)** | 34% | 62% | 67% | 72% | 39% |
| **White (Non-Hispanic)** | 44% | 93% | 84% | 83% | 38% |
| **Black (Non-Hispanic)** | 15% | 29% | 33% | 30% | 14% |
| **Multi-race (Non-Hispanic)** | 2% | 4% | 4% | 4% | 2% |
| **Other race[57] (Non-Hispanic)** | 6% | 13% | 12% | 12% | 7% |
| **Pregnant** | 2% | 4% | 5% | 4% | 1% |
| **Homeless** | 20% | 48% | 36% | 32% | 9% |
| **< High School Diploma** | 41% | 73% | 91% | 88% | 49% |
| **Criminal Justice Involvement** | 55% | 114% | 93% | 113% | 80% |
| **Employed (past 30 days)** | 22% | 46% | 41% | 43% | 24% |
| **U.S. Veteran** | 4% | 10% | 8% | 6% | 3% |
| **Medi-Cal Beneficiary** | 28% | 47% | 71% | 59% | 29% |

## 2. Medi-Cal vs. non-Medi-Cal clients

Table 40 shows that Medi-Cal clients in substance use treatment are much more likely to be female, adolescent, pregnant (as expected given the current Medicaid eligibility categories), and have less than a high school diploma compared to the non-Medi-Cal treatment population. Medi-Cal clients are also much less likely to be homeless, involved in the criminal justice system, and recently employed compared to non-Medi-Cal clients. These characteristics are consistent with what you would expect given Medicaid eligibility rules and priority populations.

Table 41 indicates that Medi-Cal clients are more likely to be individual referrals (includes self-referral), or other health care provider, other community, and Child Protective Services referrals, and less likely to be criminal justice referrals compared to non-Medi-Cal clients. Medi-Cal clients are more likely to

[57] All other races combined.

present to treatment with alcohol and marijuana use (both in isolation and in combination) and less likely to present with methamphetamine use, poly drug use that is not alcohol and marijuana in combination, and needle use compared to non-Medi-Cal clients. Medi-Cal clients are more likely to be placed into outpatient, day treatment, and narcotic treatment maintenance settings and less likely to be placed into detox and long- term residential treatment settings.[58] Medi-Cal clients are also more likely to have reported past 30-day emergency department visits, past 30-day physical health problems, past 30-day outpatient emergency department services for mental health needs, taking medication prescribed for mental health needs, past 30-day living with someone who uses substances, and past 30-day experiencing serious conflict with family members; Medi-Cal clients are also less likely to report past 30-day participation in social support recovery activities than non-Medi-Cal clients. The trends in Table 40 are also consistent with what you expect given Medicaid rules and priority populations.

### Table 40. Demographic comparison of Medi-Cal and non-Medi-Cal clients

| Characteristics | Total | No | Yes |
|---|---|---|---|
| **Total Admissions** | **841,382** | **588,409** | **252,973** |
| **Admissions (% of total by Medi-Cal eligibility)** | 100% | 70% | 30% |
| **Demographics** | | | |
| **Female** | 37% | 31% | 50% |
| **< 18** | 11% | 5% | 24% |
| **Hispanic (Any race)** | 34% | 32% | 37% |
| **White (Non-Hispanic)** | 43% | 46% | 35% |
| **Black (Non-Hispanic)** | 16% | 14% | 20% |
| **Multi-race (Non-Hispanic)** | 2% | 2% | 2% |
| **Other race[59] (Non-Hispanic)** | 6% | 6% | 6% |
| **Pregnant** | 2% | 1% | 4% |
| **Homeless** | 19% | 22% | 12% |
| **< High School Diploma** | 42% | 37% | 54% |
| **Criminal Justice Involvement** | 55% | 61% | 41% |
| **Employed (past 30 days)** | 22% | 25% | 10% |
| **U.S. Veteran** | 4% | 4% | 3% |

[58] As shown in Table 3b in Appendix B, female Medi-Cal clients have an unexpectedly high rate of placement into long term residential treatment.
[59] All other races combined.

## Table 41. Referral source, substance use condition, treatment service type, and other service and social conditions comparison of Medi-Cal and non-Medi-Cal clients

| Characteristics | Total | No | Yes |
|---|---|---|---|
| **Total Admissions** | **841,382** | **588,409** | **252,973** |
| **Admissions (% of total by Medi-Cal eligibility)** | 100% | 70% | 30% |
| **Referral Source** | | | |
| **Individual (includes self-referral)** | 38% | 36% | 43% |
| **Substance use program** | 8% | 7% | 9% |
| **Other health care provider** | 3% | 3% | 5% |
| **SACPA/Prop 36/OTP** | 23% | 27% | 13% |
| **Non-SACPA court/Criminal Justice** | 18% | 19% | 14% |
| **Other community referral** | 5% | 4% | 9% |
| **Child Protective Services** | 4% | 3% | 7% |
| **Total** | 100% | 100% | 100% |
| **Substance Use Conditions** | | | |
| **Alcohol only** | 11% | 11% | 13% |
| **Marijuana only** | 6% | 4% | 10% |
| **Methamphetamine only** | 12% | 13% | 9% |
| **Heroin only** | 8% | 8% | 8% |
| **Cocaine/Crack only** | 4% | 4% | 3% |
| **OxyCodone/OxyContin/other opiates only** | 2% | 2% | 2% |
| **Other single use** | 1% | 0% | 1% |
| **Alcohol & Marijuana (poly-drug use)** | 10% | 8% | 15% |
| **Other poly drug use** | 47% | 50% | 40% |
| **Needle Use (past 30-days)** | 15% | 15% | 15% |
| **Substance Use (past 30-days)** | 68% | 68% | 68% |
| **Treatment Service Type** | | | |
| **Outpatient** | 52% | 48% | 60% |
| **Day treatment** | 5% | 3% | 9% |
| **Detox** | 12% | 14% | 8% |
| **Residential – 30 days or less** | 1% | 2% | 1% |
| **Residential – 31 days or more** | 18% | 22% | 9% |
| **Narcotic Treatment Maintenance** | 7% | 6% | 11% |
| **Narcotic Treatment Detox** | 4% | 5% | 3% |
| **Medication prescribed as part of treatment** | 13% | 12% | 14% |
| **Other Service Conditions** | | | |
| **Past 30-days ER visit(s)** | 10% | 9% | 14% |
| **Past 30-days overnight hospital stay(s)** | 4% | 3% | 5% |
| **Past 30-days experiencing physical health problems** | 19% | 17% | 25% |
| **Past 30-days OP ER services for MH needs** | 3% | 3% | 5% |
| **Past 30-days overnight stay(s) in psychiatric facility/hospital for MH needs** | 3% | 2% | 4% |
| **Medication prescribed for MH needs** | 17% | 13% | 28% |
| **Past 30-days participation in social support recovery activities** | 36% | 38% | 30% |
| **Social Conditions** | | | |
| **Past 30-days lived with someone who uses substances** | 14% | 14% | 16% |
| **Past 30-days serious conflict with family member(s)** | 12% | 11% | 15% |

Table 42 shows that Medi-Cal clients are more likely to enter treatment with no wait time or very quickly, are extremely more likely to have lengths of stay exceeding 180 days. Medi-Cal clients were also less likely to complete treatment compared to non-Medi-Cal clients. It is important to note for this and subsequent tables that successful completion of treatment plan goals does not mean that the client is cured and will not have relapses and further treatment service needs.

Additionally, as stated above, Medi-Cal clients are more likely to be one-time users of the treatment system compared to non-Medi-Cal clients.

### Table 42. Wait time, length of stay, and discharge status comparison of Medi-Cal and non-Medi-Cal clients

| Characteristics | Total | No | Yes |
|---|---|---|---|
| **Total Admissions** | **841,382** | **588,409** | **252,973** |
| **Admissions (% of total by Medi-Cal eligibility)** | 100% | 70% | 30% |
| **Admission Type** | | | |
| **Single Admission** | 37% | 36% | 41% |
| **Recurrent Admission** | 22% | 22% | 21% |
| **Continuous Admission** | 20% | 21% | 19% |
| **Days waited to enter treatment** | | | |
| **0 days** | 72% | 68% | 79% |
| **1-3 days** | 10% | 11% | 8% |
| **4-7 days** | 7% | 8% | 6% |
| **8-14 days** | 5% | 5% | 3% |
| **15-30 days** | 4% | 5% | 3% |
| **More than 30 days** | 2% | 3% | 1% |
| **Total** | 100% | 100% | 100% |
| **Length of Stay** | | | |
| **0 days** | 4% | 4% | 4% |
| **1-15 days** | 24% | 26% | 19% |
| **16-30 days** | 12% | 12% | 10% |
| **31-60 days** | 13% | 14% | 13% |
| **61-90 days** | 11% | 12% | 10% |
| **91-120 days** | 8% | 8% | 8% |
| **121-150 days** | 6% | 5% | 6% |
| **151-180 days** | 5% | 5% | 5% |
| **More than 180 days** | 17% | 14% | 24% |
| **Total** | 100% | 100% | 100% |
| **Discharge Status** | | | |
| **Completed Tx** | 39% | 42% | 31% |
| **Non-complete/Satisfactory progress** | 18% | 16% | 22% |
| **Non-complete/Unsatisfactory progress** | 41% | 40% | 44% |
| **Incarceration** | 2% | 2% | 2% |
| **Total** | 100% | 100% | 100% |

## 3. Proxy best practice indicators by treatment service type and other conditions

The type of treatment services clients receive impacts the interpretation of service and other health-related conditions and proxy best practice indicators like days waited to enter treatment, length of stay, and discharge status. For example, limited capacity of residential treatment services due to finite "beds" available results in longer wait times for clients accessing residential treatment. Detox and residential treatment settings tend to be time limited (a few days for detox and no more than 30 days for short term residential treatment), thus expected lengths of stay would be shorter compared to other types of services, just as narcotic maintenance treatment services would be expected to have much longer lengths of stay. Finally, treatment services with time-limited lengths of stay, such as detox and residential types of settings, tend to be more restrictive in terms of client mobility and would be expected to produce a higher rate of treatment completion compared to treatment settings, such as outpatient and narcotic maintenance treatment services, which tend not to be time bound and allow much more client freedom.

Table 43 shows variability between treatment service type and referral sources, substance use conditions at treatment entry, and other health-related service conditions. Individual referrals (includes self-referral) are more common for non-narcotic and narcotic detox and narcotic maintenance treatment settings; referrals from substance use treatment programs are more likely to be for detox services; criminal justice drug offender diversion referrals (SACPA/Prop 36/OTP) are more likely to be for outpatient services with very few referrals to detox or either type of narcotic-specific treatments; non-drug offender diversion criminal justice referrals (Non-SACPA Court/Criminal Justice) are more likely to be for outpatient, short and long term residential services, with few referrals to detox or narcotic-specific treatments; and other community referrals and referrals from Child Protective Services are more likely to be for day treatment services.

Clients placed in detox are more likely to present with alcohol-only use, poly drug use that is not alcohol and marijuana in combination, and past 30-day needle use. Clients placed in long term residential are more likely to present with poly drug use that is not alcohol and marijuana in combination. Clients placed into both types of narcotic-specific treatments are more likely to present with heroin use, use of other opiates (e.g., OxyCodone and OxyContin), and past 30-day needle use. Clients placed in detox and short term residential settings are more likely to report a host of other health-related service conditions including past 30-day emergency department visits, past 30-day overnight hospital stays, past 30-day physical health problems, past 30-day outpatient emergency department services for mental health needs, and past 30-day overnight stays in a psychiatric facility or hospital for mental health needs.[60]

[60] This also holds true for Medi-Cal clients placed into long term residential treatment (see Table 3b in the Appendix B).

## Table 43. Referral source, substance use condition, and other health-related service conditions by treatment service type

| Characteristics | Total | | Day Tx | Detox | ≤ 30 day Res | > 30 day Res | Narcotic Tx Maint. | Narcotic Tx Detox |
|---|---|---|---|---|---|---|---|---|
| **Total Admissions** | **841,610** | **435,715** | **41,478** | **104,079** | **11,212** | **149,975** | **61,840** | **37,311** |
| **Admissions (% of total by service types)** | 100% | 52% | 5% | 12% | 1% | 18% | 7% | 5% |
| **Referral Source** | | | | | | | | |
| **Individual (includes self-referral)** | 38% | 21% | 23% | 63% | 36% | 37% | 87% | 92% |
| **Substance use program** | 8% | 4% | 14% | 20% | 12% | 10% | 8% | 4% |
| **Other health care provider** | 3% | 3% | 3% | 7% | 7% | 4% | 1% | 3% |
| **SACPA/Prop 36/OTP** | 23% | 36% | 16% | 5% | 15% | 18% | 3% | 1% |
| **Non-SACPA court/Criminal Justice** | 18% | 23% | 17% | 4% | 26% | 23% | 1% | 1% |
| **Other community referral** | 5% | 8% | 12% | 1% | 4% | 4% | 0% | 0% |
| **Child Protective Services** | 4% | 5% | 14% | 1% | 2% | 5% | 0% | 0% |
| **Total** | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% |
| **Substance Use Conditions** | | | | | | | | |
| **Alcohol only** | 11% | 11% | 9% | 26% | 14% | 10% | 0% | 0% |
| **Marijuana** | 6% | 9% | 13% | 0% | 3% | 2% | 0% | 0% |
| **Methamphetamine** | 12% | 15% | 12% | 6% | 12% | 14% | 0% | 0% |
| **Heroin** | 8% | 2% | 1% | 7% | 4% | 2% | 50% | 53% |
| **Cocaine/Crack** | 3% | 4% | 3% | 5% | 3% | 5% | 0% | 0% |
| **OxyCodone/OxyContin/ Other Opiates** | 2% | 0% | 0% | 2% | 1% | 1% | 10% | 10% |
| **Alcohol & Marijuana (poly-drug use)** | 10% | 14% | 14% | 6% | 11% | 7% | 0% | 0% |
| **Poly Drug Use (other than alcohol and marijuana in combination)** | 47% | 45% | 42% | 48% | 53% | 59% | 39% | 37% |
| **Needle Use (past 30-days)** | 15% | 4% | 4% | 22% | 15% | 10% | 58% | 67% |
| **Total** | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% |
| **Other Service Conditions** | | | | | | | | |
| **Past 30-days ER visit(s)** | 10% | 6% | 11% | 23% | 15% | 12% | 8% | 7% |
| **Past 30-days overnight hospital stay(s)** | 4% | 2% | 4% | 7% | 6% | 5% | 4% | 3% |
| **Past 30-days experiencing physical health problems** | 19% | 16% | 22% | 27% | 25% | 20% | 19% | 16% |
| **Past 30-days OP ER services for MH needs** | 3% | 3% | 3% | 5% | 5% | 4% | 2% | 1% |
| **Past 30-days overnight stay(s) in psychiatric facility/hospital for MH needs** | 3% | 2% | 2% | 4% | 6% | 4% | 1% | 1% |
| **Medication prescribed for MH needs** | 17% | 17% | 19% | 18% | 20% | 19% | 14% | 8% |

Table 44 also shows variability between treatment service type and days waited to enter treatment, length of stay, discharge status, and admission type (single, recurrent, continuous). As stated above, clients placed into short and long term residential settings are much more likely to have to wait to enter treatment, in some cases waiting 1 week to more than 30 days. Clients placed into day treatment and both types of narcotic-specific treatments are more likely to get into treatment immediately.[61] Non-narcotic detox, narcotic detox, and short term residential treatment settings tend to be for short lengths of stay (no more than a month), with non-narcotic detox typically no more than 2 weeks. Lengths of stay for long term residential vary greatly; the majority of these clients stay in treatment for anywhere between less than a week to 90 days. For outpatient, day treatment, and narcotic maintenance treatment settings, lengths of stay tend to be longer; more than half the clients in these settings are in treatment in excess of 90 days[62] with nearly one-third of outpatient and day treatment clients and over one-half of narcotic maintenance treatment clients in treatment for more than 180 days.[63]

By comparison, National TEDS (Treatment Episode Data Set) data from 2005 indicate median lengths of stay for the following treatment modalities: 76 days for outpatient, 53 days for long term residential, 21 days for short term residential, 3 days for detox, and 117 days for opioid replacement therapy. Additionally, clients placed into outpatient and day treatment services are more likely to be one-time users of the treatment system while clients placed into both types of detox services are highly more likely to be recurrent users of the system; clients placed into both short and long term residential and narcotic maintenance treatment services are highly more likely to be continuous users of the system.[64]

[61] This also holds true for Medi-Cal clients placed into outpatient treatment (see Table 3b in the Appendix).
[62] Simpson (2001) has suggested that 90 days retention in outpatient treatment is highly correlated with successful treatment completion.
[63] For each of these modalities, Medi-Cal clients experience longer lengths of stay compared to non-Medi-Cal clients (see Tables 3b and 3c in Appendix B).
[64] There were some slight differences in the relationship of treatment service type and admission type between Medi-Cal and non-Medi-Cal clients. Among clients placed into detox services, Medi-Cal clients were more likely than non-Medi-Cal clients to be continuous users of the treatment system. Among clients placed into day treatment services, non-Medi-Cal clients were more likely than Medi-Cal clients to be continuous users of the treatment system (see Tables 3b & 3c in Appendix B).

## Table 44. Wait time, length of stay, and discharge status by treatment service type

| Characteristics | Total | OP | Day Tx | Detox | ≤ 30 day Res | > 30 day Res | Narcotic Tx Maint. | Narcotic Tx Detox |
|---|---|---|---|---|---|---|---|---|
| **Total Admissions** | **841,610** | **435,715** | **41,478** | **104,079** | **11,212** | **149,975** | **61,840** | **37,311** |
| **Admissions (% of total by service types)** | 100% | 52% | 5% | 12% | 1% | 18% | 7% | 5% |
| **Admission Type** | | | | | | | | |
| **Single Admission** | 37% | 46% | 41% | 22% | 32% | 31% | 26% | 19% |
| **Recurrent Admission** | 22% | 19% | 16% | 31% | 19% | 21% | 23% | 29% |
| **Continuous Admission** | 20% | 15% | 22% | 22% | 25% | 27% | 33% | 18% |
| **Days Waited to Enter Treatment** | | | | | | | | |
| **0 days** | 72% | 77% | 85% | 72% | 51% | 44% | 87% | 86% |
| **1-3 days** | 10% | 8% | 6% | 13% | 13% | 16% | 8% | 10% |
| **4-7 days** | 7% | 7% | 4% | 6% | 11% | 12% | 3% | 3% |
| **8-14 days** | 5% | 4% | 2% | 5% | 9% | 10% | 1% | 1% |
| **15-30 days** | 4% | 3% | 2% | 3% | 12% | 11% | 1% | 1% |
| **More than 30 days** | 2% | 2% | 1% | 1% | 6% | 7% | 0% | 0% |
| **Total** | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% |
| **Length of Stay** | | | | | | | | |
| **0 days** | 4% | 5% | 5% | 5% | 1% | 1% | 2% | 3% |
| **1-15 days** | 24% | 9% | 12% | 89% | 36% | 21% | 10% | 36% |
| **16-30 days** | 12% | 10% | 11% | 5% | 48% | 14% | 10% | 36% |
| **31-60 days** | 13% | 15% | 18% | 1% | 8% | 19% | 10% | 8% |
| **61-90 days** | 11% | 12% | 12% | 0% | 4% | 21% | 8% | 5% |
| **91-120 days** | 8% | 11% | 10% | 0% | 1% | 8% | 6% | 3% |
| **121-150 days** | 6% | 8% | 7% | 0% | 0% | 4% | 5% | 3% |
| **151-180 days** | 5% | 7% | 6% | 0% | 0% | 4% | 4% | 4% |
| **More than 180 days** | 17% | 23% | 20% | 0% | 1% | 7% | 45% | 4% |
| **Total** | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% |
| **Discharge Status** | | | | | | | | |
| **Completed Tx** | 39% | 32% | 28% | 71% | 72% | 49% | 10% | 23% |
| **Non-complete/ Satisfactory progress** | 18% | 18% | 21% | 11% | 6% | 16% | 31% | 26% |
| **Non-complete/ Unsatisfactory progress** | 41% | 47% | 48% | 18% | 21% | 34% | 54% | 50% |
| **Incarceration** | 2% | 3% | 3% | 0% | 0% | 1% | 5% | 1% |
| **Total** | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% |

Table 44 also shows discharge status by treatment service type. About one-third of clients in outpatient treatment (32%) complete their episode, 18% do not complete treatment but make satisfactory progress, and 47% neither complete treatment nor make satisfactory progress. For clients in long term residential treatment, this balance is 49%, 16% and 34%; for short term residential it is 72%, 6%, and 21%; for non-narcotic detox it is 71%, 11%, and 18%; and both narcotic-specific treatments have low completion rates (10% for maintenance and 23% for detox). By comparison, National TEDS (Treatment Episode Data Set)

data from 2005 indicate that 36% of outpatient, 39% of long term residential, 65% of detox, and 19% of opioid replacement therapy clients complete treatment successfully. As stated above, treatment services with time-limited lengths of stay, such as detox and residential types of settings, tend to be more restrictive in terms of client mobility and would be expected to produce a higher rate of treatment completion compared to outpatient and narcotic maintenance treatment settings that tend not to be time bound and allow much more client freedom. It is interesting to note that narcotic treatment maintenance has by far the highest percentage of clients in treatment for more than 180 days (as many clients in this type of treatment have lengths of stay that last years), but also has by far the lowest rate of treatment completion[65] (10%) and the highest rate of discharge due to incarceration. It is also interesting to look at this data in relation to the finding from table 42 above that Medi-Cal clients are more likely to not complete treatment and have stays over more than 180 days. In Appendix B, tables 3a and 3b you can see that Medi-Cal clients are receiving almost twice the amount of narcotic maintenance treatment than non Medi-Cal clients (11% for Medi-Cal vs. 6% for non Medi-Cal) which could understand some of the differences between completion rates and length of stay differences between Medi-Cal clients versus non Medi-Cal clients.

## 4. System resource impacts

Treatment service users have varying levels of impact on the expenditure of system resources. Clients who enter and exit the system multiple times (recurrent users) consume a lot of resources while clients who receive multiple treatment services within a continuum of care are more likely to achieve positive outcomes and thereby represent a better investment of limited resources. Short and long term residential treatment services cost more per client than other types of services, thus a small number of clients use a bigger share of available resources. Additionally, some population types tend to consume a disproportionate amount of system resources due to substance use and patient placement needs or other health-related service needs.

As stated above regarding Table 44, clients placed into outpatient and day treatment services are more likely to be one-time users of the treatment system while clients placed into both types of detox services are highly more likely to be recurrent users of the system. Clients placed into both short and long term residential and narcotic treatment maintenance services are highly more likely to be continuous users of

[65] It is important to put in context the low completion rate for the narcotic maintenance treatment service "Treatment completion" (ending services for the client). Since the goal is keep clients in this service long term it would not be seen as a successful measure of treatment performance. DADP reports working with County AOD Administrators on this issue and there is discussion among stakeholders that a meaningful statewide performance measure for narcotic replacement services would focus on the percentage of clients that stay in treatment a year or more. "Treatment completion" in this light could be contrary to treatment "success".

the system. Table 45 displays the utilization of other health-related services, length of stay, and discharge status for recurrent and continuous users of the publicly funded treatment system. Clients with lengths of stay between 16 and 120 days tend to have high rates of recurrent and continuous use of the treatment system, with lengths of stay between 31 and 90 days exhibiting the highest rates. Clients who complete treatment were more likely to be one-time or continuous users of the system. Among clients who leave treatment before completing, those making satisfactory progress in treatment were more likely to be continuous users or to have a combination of continuous and recurrent use while those not making satisfactory progress in treatment were more likely to be recurrent users or to have a combination of continuous and recurrent use.

## Table 45. Recurrent and continuous users of the treatment system

| Characteristics | Total | Single Admission Only | Continuous Admissions Only | Recurrent Admissions Only | Mixed (Continuous & Recurrent) Admissions |
|---|---|---|---|---|---|
| **Total Individuals** | **243,563** | **154,323** | **28,918** | **41,521** | **18,801** |
| **Individuals (% of total across FYs 2007-2010)** | 100% | 63% | 12% | 17% | 8% |
| **Other Service Conditions at First Admission** | | | | | |
| **Past 30-days ER visit(s)** | 9% | 9% | 9% | 9% | 11% |
| **Past 30-days overnight hospital stay(s)** | 3% | 3% | 3% | 3% | 4% |
| **Past 30-days experiencing physical health problems** | 18% | 18% | 18% | 18% | 20% |
| **Self-Report Mental illness diagnosis**[66] | 22% | 19% | 24% | 25% | 29% |
| **Past 30-days OP ER services for MH needs** | 3% | 3% | 3% | 3% | 3% |
| **Past 30-days overnight stay(s) in psychiatric facility/hospital for MH needs** | 2% | 2% | 2% | 2% | 3% |
| **Medication prescribed for MH needs** | 11% | 8% | 17% | 11% | 16% |
| **Past 30-days participation in social support recovery activities** | 35% | 29% | 54% | 37% | 51% |
| **Length of Stay (Mean – All Admissions)** | | | | | |
| **0 days** | 3% | 4% | 0% | 1% | 0% |
| **1-15 days** | 15% | 16% | 11% | 15% | 13% |
| **16-30 days** | 10% | 10% | 10% | 11% | 13% |
| **31-60 days** | 15% | 13% | 19% | 21% | 26% |
| **61-90 days** | 13% | 12% | 16% | 16% | 20% |
| **91-120 days** | 10% | 10% | 12% | 12% | 12% |
| **121-150 days** | 8% | 8% | 8% | 8% | 7% |
| **151-180 days** | 6% | 6% | 6% | 5% | 4% |
| **More than 180 days** | 20% | 22% | 18% | 11% | 6% |
| **Total** | 100% | 100% | 100% | 100% | 100% |
| **Discharge Status at First Admission** | | | | | |
| **Completed Tx** | 38% | 40% | 40% | 24% | 29% |
| **Non-complete/Satisfactory progress** | 18% | 17% | 26% | 16% | 20% |
| **Non-complete/Unsatisfactory progress** | 42% | 40% | 33% | 57% | 49% |
| **Incarceration** | 2% | 2% | 1% | 3% | 2% |
| **Total** | 100% | 100% | 100% | 100% | 100% |

Short term residential treatment makes up only 1% of all admissions while long term residential treatment comprises 16% of all admissions, playing a substantial role in the system (see Appendix B, Table 1a). From a Medi-Cal expansion standpoint, Medi-Cal clients utilize residential services at a much lower rate compared to non-Medi-Cal clients. From an outcome perspective, nearly half the clients in long term residential treatment are discharged as treatment completers.

[66] DADP and CalOMS do not collect adequate data from which to determine actual numbers of clients with co-occurring mental illnesses

As stated in the section on demographic characteristics, homeless and criminal justice involved clients utilize residential services at disproportionately high rates. Additionally, clients with poly drug use tend to utilize costly residential services while also entering and leaving the treatment system multiple times as recurrent and continuous users (see Appendix B, Table 5). Heroin and needle users, alternatively, tend to utilize less costly treatment services (detox and narcotic-specific treatments) but they tend to leave treatment before completion and enter the treatment system multiple times as recurrent and continuous users.

Table 46 shows that certain substance use treatment client groups impact other health-related systems differentially. For example, alcohol-only users, compared to other types of substance users, present with higher rates of other service conditions: past 30-day emergency department visits, past 30-day overnight hospital stays, experiencing past 30-day physical health problems, and having medication prescribed for mental health needs.

### Table 46. Other health-related service conditions by substance use condition

| Characteristics | Total | Alcohol Only | Marijuana Only | Other Drug Only | Alcohol & Marij. | Other Poly Drug | Needle Use | Substance Use |
|---|---|---|---|---|---|---|---|---|
| **Total Admissions** | **841,610** | **94,798** | **48,786** | **163,226** | **85,296** | **334,460** | **115,044** | **569,316** |
| **Admissions (% of total by substance use type)** | 100% | 11% | 6% | 19% | 10% | 40% | 14% | 68% |
| **Other Service Conditions** | | | | | | | | |
| **Past 30-days ER visit(s)** | 10% | 19% | 5% | 7% | 10% | 9% | 11% | 12% |
| **Past 30-days overnight hospital stay(s)** | 4% | 7% | 2% | 3% | 3% | 3% | 4% | 4% |
| **Past 30-days experiencing physical health problems** | 19% | 26% | 12% | 15% | 19% | 19% | 20% | 21% |
| **Past 30-days OP ER services for MH needs** | 3% | 5% | 2% | 2% | 4% | 4% | 3% | 4% |
| **Past 30-days overnight stay(s) in psychiatric facility/hospital for MH needs** | 3% | 4% | 2% | 2% | 3% | 3% | 2% | 3% |
| **Medication prescribed for MH needs** | 17% | 25% | 11% | 13% | 20% | 18% | 13% | 17% |

Table 47, below, shows that clients referred from other health programs are also more much more likely to be impacted by other service conditions, including: past 30-day emergency department visits, past 30-day overnight hospital stays, experiencing past 30-day physical health problems, past 30-day outpatient emergency department services for mental health needs, past 30-day overnight stays in a psychiatric facility or hospital for mental health needs, and medication prescribed for mental health needs.

### Table 47. Other health-related service conditions by referral source

| Characteristics | Total | Individual | SA Program | Other Health Program | SACPA/ Prop 36/ OTP | Non-SACPA Court/ Criminal Justice | Other Comm Referral | CPS |
|---|---|---|---|---|---|---|---|---|
| **Total Admissions** | **757,962** | **290,371** | **59,091** | **24,918** | **175,364** | **134,115** | **41,565** | **32,538** |
| **Admissions (% of total by referral source)** | 100% | 38% | 8% | 3% | 23% | 18% | 5% | 4% |
| **Other Service Conditions** | | | | | | | | |
| **Past 30-days ER visit(s)** | 10% | 13% | 12% | 27% | 6% | 6% | 6% | 11% |
| **Past 30-days overnight hospital stay(s)** | 3% | 4% | 5% | 13% | 2% | 2% | 2% | 5% |
| **Past 30-days experiencing physical health problems** | 19% | 21% | 19% | 37% | 15% | 14% | 14% | 22% |
| **Past 30-days OP ER services for MH needs** | 3% | 4% | 4% | 15% | 2% | 2% | 2% | 3% |
| **Past 30-days overnight stay(s) in psychiatric facility/hospital for MH needs** | 2% | 3% | 3% | 17% | 1% | 1% | 1% | 1% |
| **Medication prescribed for MH needs** | 16% | 18% | 20% | 48% | 10% | 13% | 11% | 15% |

## 5. Other observations of the data

Clients with past 30-day participation in social support recovery activities have a high rate (84%) of completing treatment (see Appendix B, Table 6). Clients referred from substance use programs are much more likely to be discharged as completing treatment compared to other referral sources: 51% compared to 34-43% (Admissions; see Appendix B, Table 8). One potential reason for why clients referred from substance use programs complete treatment at a higher rate than clients from other referral sources could be that referrals from substance use programs are disproportionally placed in detox, which has a high rate of treatment completion (see Appendix B, Table 6).

The data show that homeless individuals are more likely served in detox and residential treatment settings and that homeless clients are more likely to be recurrent users or have a combination of continuous and recurrent use. Consistent with other systems the homeless often only receive detox and are not transferred to other outpatient treatment services. A concern is that these homeless clients often recycle

back through repeated detox-only cycles, then return to the streets with no further help. In order to most efficiently use the detox services there needs to be a continuum of care to other substance use services[67].

### *a) Substance use condition*

The following are some observations regarding substance use conditions (see Appendix B, Table 7) in relation to demographic characteristics, referral source, and best practice indicators. Demographic highlights include the following: adolescents typically present to treatment with marijuana (51%) or alcohol and marijuana use (42%); white clients have disproportionately high rates of needle use (53%); black clients have disproportionately high rates of presenting with marijuana use (28%); homeless clients have disproportionately high rates of presenting with alcohol-only use (24%), poly drug use that is not alcohol and marijuana in combination (22%), and needle use (22%); criminal justice involved clients have disproportionately low rates of alcohol-only use (34%) and needle use (36%); U.S. veterans have disproportionately low rates of marijuana use (1%); Medi-Cal beneficiaries most commonly present with marijuana use (52%) or alcohol and marijuana use (44%).

Referral source highlights include the following: individual referrals (includes self-referral) most commonly present with needle use (71%) and alcohol-only use (51%); criminal justice drug offender diversion referrals (SACPA/Prop 36/OTP) most commonly present with other drug use[68] (34%) and poly drug use that is not alcohol and marijuana in combination (31%); non-criminal justice drug offender diversion referrals (Non-SACPA Court/Criminal Justice) most commonly present with marijuana use (31%) and alcohol and marijuana use (30%);[69] and other community referrals most commonly present with marijuana (15%) and alcohol and marijuana use (14%).

Best practice indicator highlights include the following: alcohol-only and needle users have higher rates of short (1-15 days) lengths of stay, 35% and 37%, respectively; and alcohol-only users have higher rates of being discharged as completing treatment (53%) compared to other types of substance users (29-40%). In addition, alcohol-only users have much higher rates of placement into non-narcotic detox (26%) and needle users have much higher rates of placement into narcotic-specific detox (67%) and non-narcotic detox (22%). Both types of detox typically have short lengths of stay, but non-narcotic detox has a high rate of treatment completion (71%) at discharge, which helps explain why alcohol-only users have a

[67] DADP has indicated they are currently working with county treatment administrators and other stakeholders to develop treatment performance measures that underscore the importance of ensuring clients receiving detoxification services are then transferred to other needed residential and outpatient services.
[68] Other drug use is defined as drugs other than alcohol or marijuana.
[69] SACPA/Prop 36/OTP referrals are supposed to be non-violent drug offenders, so it makes sense that these criminal justice offenders would present with more severe substance use conditions compared to other criminal justice referrals.

higher rate of brief lengths of stay while also having a higher rate of treatment completion at discharge. Alcohol-only, marijuana, and alcohol and marijuana users are much more likely, compared to other types of substance users, to have a single admission into treatment during the study period (and subsequently, lower rates of recurrent and continuous use of the treatment system) whereas heroin and needle users tend to enter the treatment system multiple times as recurrent and continuous users and to leave treatment before completing.

### *b) Medi-Cal beneficiary status by county*

Following is a ranking of counties by substance use treatment admissions for Medi-Cal beneficiaries and total population (see Table 10 in Appendix B):

### Table 48. County rank of substance use treatment admissions and total population

| | County | % Enrolled in Medi-Cal | Population Rank |
|---|---|---|---|
| **1** | Los Angeles | 33.6% | 1st |
| **2** | Fresno | 6.2% | 10th |
| **3** | Sacramento | 4.9% | 8th |
| **4** | San Francisco | 4.4% | 11th |
| **5** | Riverside | 3.8% | 4th |
| **6** | Alameda | 3.4% | 7th |
| **7** | San Bernardino | 3.4% | 5th |
| **8** | San Diego | 3.2% | 2nd |
| **9** | Santa Clara | 2.8% | 6th |
| **10** | Tulare | 2.4% | 18th |

## Table 49. California's treatment population compared to a national treatment population

| Characteristic | California (2007-2010) | National (1997-2007) |
|---|---|---|
| **Demographics** | | |
| **Female** | 37% | 32% |
| **< 18** | 11% | 7% |
| **Hispanic (Any race)** | 34% | 14% |
| **White (Non-Hispanic)** | 43% | 60% |
| **Black (Non-Hispanic)** | 16% | 21% |
| **Other race[70] (Non-Hispanic)** | 6% | 5% |
| **< High School Diploma** | 42% | 32% |
| **Criminal Justice Referral[71]** | 41% | 37% |
| **Treatment Service Type *(2007 Only)*** | | |
| **Outpatient (includes day and narcotic maintenance treatment)** | 64% | 62% |
| **Residential (short and long term)** | 19% | 18% |
| **Detox (includes narcotic-specific detox)** | 17% | 20% |
| **Length of Stay *(2005 Only)*** | | |
| **OP** | 53% stay > 90 days<br>29% > stay > 180 days | 76 days |
| **Day Tx** | 52% stay > 90 days<br>33% stay > 180 days | |
| **Detox** | 92% stay ≤ 15 days | 3 days |
| **≤ 30 day Res** | 39% stay ≤ 30 days | 21 days |
| **> 30 day Res** | 73% stay between < 7 to 90 days | 53 days |
| **Narcotic Tx Maint.** | 68% stay >90 days<br>55% stay >180 days | 117 days |
| **Narcotic Tx Detox** | 72% stay ≤ 30 days | |
| **Discharge Status: Treatment Completion *(2005 Only)*** | | |
| **OP** | 32% | 36% |
| **Day Tx** | 28% | |
| **Detox** | 71% | 65% |
| **≤ 30 day Res** | 72% | 56% |
| **> 30 day Res** | 49% | 39% |
| **Narcotic Tx Maint.** | 10% | 19% |
| **Narcotic Tx Detox** | 23% | |

[70] All other races combined (in this table it also includes multi-race).
[71] See Table 1a in Appendix B; represents a sum of all criminal justice referrals.

## F. CONCLUSION

The DADP substance use service system in California is a large and essential component of California's overall set of services and financing resources for people in need of behavioral health services. The DADP system currently accomplishes over 180,000 service admissions per year, and the non-Medi-Cal budget for county-level substance use services is over $550 million. As with many states, and despite very limited resources, California is already accomplishing a great deal on behalf of people with substance use service needs. There is evidence of good practice (e.g., 72% of all admissions are accomplished within one day, and 89% of admissions are accomplished within one week), and the balance of outpatient, residential and detoxification services comports with national medians. The primary purpose of the analysis is to describe how the DADP system functions in concert with DMH and Medi-Cal, and to provide a basis for coordinated planning for these systems in the Service System Plan required by the Special Terms and Conditions.

As can be seen from the comparisons with national data, service access and utilization for the DADP system is quite similar to national patterns. This is particularly true, as demonstrated in Table 48, above, for utilization of outpatient, residential and detoxification services. California's differences from national data reflect differences in demographics, particularly with regard to African American people (California has a lower proportion than nationally) and Hispanic people (California has a higher proportion than nationally). California has better than average treatment completion rates for detox and residential services, and slightly lower completion rates than nationally for outpatient and narcotic treatment maintenance services.

Although California's use of all types of residential services is consistent with national data, the use of short term residential is considerably lower than for long term residential. As noted above, only 1% of admissions are for short term residential services, while 16% of admissions are for long term residential services. This may indicate an over-reliance on long term residential care, which is typically one of the most expensive service components in most local systems. Longer term residential services are not typically reimbursed by Medi-Cal, and thus are likely to remain as state/county funded resources after 2014.

By contrast, over 60% of all admissions to the DADP system are for outpatient treatment. This is an expected pattern, and as noted is consisted with national averages. In most jurisdictions state, county and block grant funds have been used to support outpatient treatment, particularly for childless single adults who have not been eligible for Medi-Cal. After 2014 many of these individuals will become eligible for Medi-Cal, and some amount of outpatient treatment is likely to be covered under the benchmark benefit

plans for the Medi-Cal expansion population. This may result in the ability to re-deploy some of the resources currently expended on outpatient treatment for uninsured individuals to fill other gaps in the substance use service system.

For both long term residential services and for outpatient treatment, there will be opportunities to consider (a) how these service modalities reflect best practices; and (b) how they dovetail with Medi-Cal and DMH services after 2014. This is an example of how the DADP data can be useful for the Service System Plan. Another example is information on treatment completion. Although California is consistent with national data on treatment completion, the rates of treatment completion are still quite low. Only 38% complete outpatient treatment; only 28% complete day treatment; and only 10% complete narcotic treatment maintenance. In addition, 17% of all people admitted to services have recurrent admissions, meaning they return to treatment after at least three months of receiving no treatment. Incomplete treatment and recurring presentations to the system are both indicators that people are not remaining engaged, and in some cases this may mean the system is not delivering what people need at the time they need it to be fully engaged in treatment. This is a quality management issue, but it also indicates a need for planning related to engagement and service responsiveness strategies going forward.

# VI. ANALYSIS OF THE DMH'S CLIENT AND SERVICES INFORMATION (CSI) DATA

## A. MOTIVATION FOR THIS PORTION OF THE NEEDS ASSESSMENT

### 1. Relation to the 1115 Terms and Conditions

The California 1115 Bridge to Reform Waiver Special Terms and Conditions call for a detailed analysis of behavioral health needs and gaps in California, followed by a Service System Plan. Although the terms and conditions focus primarily on Medi-Cal funded mental health and substance use services, it is understood that an assessment of needs and gaps and the development of a behavioral health system plan cannot be done without also considering non-Medi-Cal systems, services, providers, and consumers. This chapter presents Department of Mental Health (DMH) data collected and managed through the California Client and Services Information (CSI) statewide database. This dataset is particularly useful because it provides information not available in the Medicaid claims; in particular it details what EBPs are being delivered in the state as well as information on functional level status of persons receiving services through DMH.

As discussed in the previous chapter on the DADP system, non Medi-Cal funded mental health and substance use services represent key resources for consumers. They also represent systems that currently fill gaps and provide services not covered by Medi-Cal for current Medi-Cal recipients as well as for people not enrolled in Medi-Cal. The data about non-Medi-Cal funded mental health services access, utilization and practice patterns are critical to establishing a complete and accurate baseline for future behavioral health system planning.

### 2. Specific questions to be addressed in this chapter

CSI data supplied by DMH has permitted analysis of a number of key questions related to non Medi-Cal funded mental health services in California. These questions include:

7. What are the characteristics of people accessing DMH services in California?
8. What are the types and amounts of services delivered?
9. To what extent are evidence-based practices and best practice service strategies being utilized across the state?
10. What is the functional level of people served by the system?
11. Are there differences in the type and amount of services received by functional status level?

12. Are there differences in how people transition into and out of the system by functional level and service utilized?

### 3. Relationship to other sections of the Assessment and Plan

The analysis of non Medi-Cal funded mental health services and utilization relates directly to the companion analyses conducted using the DADP's CalOMS Treatment data and Medi-Cal funded mental health and substance use claims and encounter data. In combination, analysis of data from these three systems presents the most objective, quantifiable picture possible of the current behavioral health system in California. Information from this chapter also provides context and depth to other portions of the overall needs and gaps analysis. For example, the chapters on special populations and provider capacity were partially informed by information from this chapter.

As a baseline for future system planning, the CSI data provides a starting point for addressing system gaps and for planning coordinated use of Medi-Cal and non-Medi-Cal resources in the future. In addition, some of the data can be used to estimate Medi-Cal mental health utilization for the expansion population in 2014.

## B. METHODS

The Department of Mental Health provided TAC/HSRI with data that enabled us to examine the utilization pattern of services using our method for evaluating behavioral health system performance. Three datasets were received covering the period between 2006 and 2010. These datasets contained demographic information on the client's date and place of birth, gender, race and ethnicity and primary and preferred language. Additional information received included highest level of education attained, employment status, living arrangements, and whether substance use, developmental disability or physical health conditions affected the individual's mental health during the reporting period. For youths, data was also available on whether the client has a conservatorship or is involved with the juvenile courts. The last data file, included information on services received by the client over the calendar year. Services provided by DMH, including Evidence-Based Practices along with assessments in GAF (Global Assessment in Functioning), dates and specific units and amounts of services were also recorded in the services files. Lastly, the service files also contained information indicating if the client had experienced trauma, a substance use issue, as well as primary and secondary diagnoses.

A complete methods section is located in the companion to this document in Appendix C. It should also be noted that the data tables presented here are condensed versions of the tables presented in Appendix C. The Appendix includes more detailed information on the results of the CSI data analysis.

## C. LIMITATIONS

There are two main limitations related to the CSI data: limitations of the Global Assessment of Functioning (GAF) and the Children's Global Assessment Scale (CGAS) as measures of functional level and the lack of fidelity measures for the reported EBPs.

The GAF, which provides a measure of overall functioning related to psychiatric symptoms, has had mixed reviews of psychometric properties including test–retest reliability, inter-rater reliability, and validity. These drawbacks are common to all uni-dimensional scales address a complex construct like "functioning" that encompasses numerous domains. Another common criticism is that the measure tends to confound symptoms and functioning so that individuals with significant symptomatology score low even when their social and occupational functioning is relatively high and vice versa.

The CGAS is used to rate the general functioning of children under the age of 18. The CGAS is also a uni-dimensional scale to measure functioning, but with additional layers of complexity compared to the GAF, as it is used with a wide range of ages that encompass many different developmental stages, each stage with its own behavioral and functional norms that are difficult to account for in such a general measure. While the CGAS has been found to have adequate psychometric properties, like the GAF it also requires training in administration and interpretation to administer properly. Given the widespread use of the measure, it is not clear that this condition is consistently met.

EBPs are generally complex services that involve delivering and/or coordinating a variety of component services and service sectors that are responsible for affecting different behaviors and providing quality of life in a number of domains. Fidelity measures are measures developed to capture whether interventions perform these complex functions. Ideally, fidelity measures would be available for each EBP to verify that services claimed as EBPs actually meet fidelity requirements. Since this data is not available at the state level (typical for most states) we are not able to determine the impact of EBPs delivered with fidelity on the service system.

Despite the limitations this is a rich dataset and it was used to provide some basic assessment of how the system is functioning in relation to the services that are provided. The utility of this data for the planning stage may also suggest ways in which the data collection and assessment process can be improved for other continuous quality improvement initiatives.

## D. CLIENT DEMOGRAPHICS

Tables 50-51 below presents basic demographics of the population accessing mental health treatment between 2006 and2010.

As Table 50 below indicates, across all five years a large percentage of individuals accessing the DMH system (47%-50%) were between the ages of 27-64. The percent of children age 0-13 receiving services was also sizable, between 21%-22%. And the percentage of individuals aged 14-17 using the system ranged from 13%-15%. Individuals aged 65 and older comprised a small percentage (3%) of the services received. The gender breakdown of those accessing the system remained largely constant, around 48% female and 52% male.

### Table 50. Demographic characteristics - age and race/ethnicity

| Characteristics | CY 2006 | | CY 2007 | | CY 2008 | | CY 2009 | | CY 2010 | |
|---|---|---|---|---|---|---|---|---|---|---|
| | N | %[72] | N | % | N | % | N | % | N | % |
| **Total** | **630,239** | **100%** | **637,700** | **100%** | **660,168** | **100%** | **635,942** | **100%** | **560,818** | **100%** |
| **Demographics** | | | | | | | | | | |
| **Age** | | | | | | | | | | |
| **0-13** | 133,735 | 21% | 133,770 | 21% | 137,345 | 21% | 135,965 | 21% | 123,028 | 22% |
| **14-17** | 84,955 | 13% | 86,971 | 14% | 92,245 | 14% | 92,144 | 14% | 82,390 | 15% |
| **18-21** | 33,507 | 5% | 34,702 | 5% | 38,391 | 6% | 37,986 | 6% | 35,034 | 6% |
| **22-26** | 44,613 | 7% | 45,349 | 7% | 47,273 | 7% | 43,786 | 7% | 37,159 | 7% |
| **27-64** | 315,444 | 50% | 318,905 | 50% | 325,343 | 49% | 306,949 | 48% | 266,268 | 47% |
| **65+** | 17,672 | 3% | 17,854 | 3% | 19,429 | 3% | 18,951 | 3% | 16,818 | 3% |
| **Unknown/Not Reported[73]** | 313 | 0.05% | 149 | 0.02% | 142 | 0.02% | 161 | 0.03% | 121 | 0.02% |
| **Gender** | | | | | | | | | | |
| **Female** | 301,977 | 48% | 303,528 | 48% | 313,603 | 48% | 304,316 | 48% | 270,356 | 48% |
| **Male** | 325,954 | 52% | 331,858 | 52% | 344,435 | 52% | 330,400 | 52% | 289,490 | 52% |
| **Other** | 40 | 0% | 40 | 0% | 46 | 0% | 51 | 0% | 42 | 0% |
| **Unknown** | 2,268 | 0.4% | 2,274 | 0.4% | 2,084 | 0.3% | 1,175 | 0.2% | 930 | 0.2% |
| **Race/Ethnicity** | | | | | | | | | | |
| **White** | 152,711 | 24% | 185,246 | 29% | 191,514 | 29% | 177,874 | 28% | 154,146 | 27% |
| **African American** | 52,649 | 8% | 65,074 | 10% | 66,361 | 10% | 62,806 | 10% | 50,536 | 9% |
| **Asian-NH** | 24,522 | 4% | 28,441 | 4% | 28,739 | 4% | 27,238 | 4% | 22,870 | 4% |
| **Pacific Islander** | 1,677 | 0.3% | 2,305 | 0.4% | 3,797 | 1% | 2,414 | 0.4% | 1,919 | 0.3% |
| **Native** | 4,911 | 1% | 6,203 | 1% | 6,510 | 1% | 6,175 | 1% | 4,954 | 1% |
| **Other** | 56,043 | 9% | 63,296 | 10% | 60,622 | 9% | 57,573 | 9% | 49,794 | 9% |
| **Hispanic** | 95,819 | 15% | 129,453 | 20% | 134,997 | 20% | 132,448 | 21% | 116,643 | 21% |
| **Multi** | 25,666 | 4% | 31,163 | 5% | 33,542 | 5% | 31,535 | 5% | 27,957 | 5% |

[72] These percentages reflect the percent of the total population served by DMH that belong to the specified demographic group. For example, in 2006, of the total population served by DMH, 48% identified as female.
[73] Because the age is unknown or not reported we were unable to determine if they were a youth or adult and thus these individuals have not been included in the following adult and youth tables.

Among the population using services, between 16%-21% had less than a high school diploma, and between 1%-2% were homeless. In every year since 2007, over 20% of individuals reported having experiencing trauma. However, the increase in the reporting of trauma in recent years may be due partially to changes in reporting practices.

Employment among the population receiving services was very low, at 2%. This rate is much lower than the estimated national employment rate for individuals with serious mental illness (22%), or the estimated percent of these individuals employed full-time (12%).[74] Demographic data broken down by youth and adults may be found in Appendix C, Tables 1b & 1c.

### Table 51. Demographic characteristics: Other

| Characteristics | CY 2006 | | CY 2007 | | CY 2008 | | CY 2009 | | CY 2010 | |
|---|---|---|---|---|---|---|---|---|---|---|
| | N | %[75] | N | % | N | % | N | % | N | % |
| **Total** | **630,239** | **100%** | **637,700** | **100%** | **660,168** | **100%** | **635,942** | **100%** | **560,818** | **100%** |
| **< High School Diploma** | 135,448 | 21% | 100,641 | 16% | 118,836 | 18% | 119,029 | 19% | 99,738 | 18% |
| **Homeless** | 8,700 | 1% | 6,987 | 1% | 8,490 | 1% | 9,950 | 2% | 7,463 | 1% |
| **Criminal Justice Involvement** | 11,812 | 2% | 6,921 | 1% | 9,605 | 1% | 10,933 | 2% | 8,926 | 2% |
| **Employed (past 30 days)** | 15,496 | 2% | 14,859 | 2% | 15,672 | 2% | 14,933 | 2% | 10,957 | 2% |
| **Has Experienced Trauma** | 69,858 | 11% | 125,680 | 20% | 141,626 | 21% | 138,867 | 22% | 118,041 | 21% |
| **Has Substance Dependence Diagnosis** | 85,065 | 13% | 134,248 | 21% | 136,535 | 21% | 120,808 | 19% | 94,379 | 17% |

## E. SERVICE UTILIZATION

Among services provided by the DMH, outpatient services were by far the most common type received as compared to 24 Hour Services and Day Services. Of the 24 Hour Services, Inpatient Hospitalizations were the most common service; between 3%-4% of individuals used these services each year (see Appendix C, Table 2a). Of day services, Crisis Stabilization – Emergency (6%-7%), and Crisis

[74] U.S. Department of Health and Human Services. Office of Disability, Aging and Long-Term Care Policy (DALTCP): *Federal Financing of Supported Employment and Customized Employment for People with Mental Illnesses: Final Report*. By Mustafa Karakus, William Frey, Howard Goldman, Suzanne Fields and Robert Drake, Westat Inc. Washington, DC, 2011. Retrieved from: *http://aspe.hhs.gov/daltcp/reports/2011/supempFR.pdf*

[75] These percentages reflect the percent of the total population served by DMH that belong to the specified demographic group. For example, in 2006, of the total population served by DMH, 21% had less than a high school diploma.

Stabilization – Urgent Care (2%-3%) were the most common services received (see Appendix C, Table 2b).

As shown in Table 52 below, within the category of outpatient services, a handful of services were received by a large percentage of individuals. These include Targeted Case Management (45%-46%), Collateral (26%-27%), Mental Health Services (74%-77%), Medication Support (49%-51%), and Crisis Intervention (18%-20%). Appendix C Tables 2b & 2c provide details broken out by adults and youth, and Appendix C Table 3 provides the amount of services received (total units).

### Table 52. Utilization – outpatient services (% received)

| Services | CY 2006 | | CY 2007 | | CY 2008 | | CY 2009 | | CY 2010 | |
|---|---|---|---|---|---|---|---|---|---|---|
| | N | %[76] | N | % | N | % | N | % | N | % |
| **Total** | **630,213** | **100%** | **637,671** | **100%** | **660,134** | **100%** | **635,899** | **100%** | **560,784** | **100%** |
| **Outpatient Services** | | | | | | | | | | |
| **Targeted Case Management** | 291,162 | 46% | 289,261 | 45% | 304,768 | 46% | 290,048 | 46% | 253,374 | 45% |
| **Collateral** | 161,504 | 26% | 162,934 | 26% | 171,809 | 26% | 170,176 | 27% | 149,884 | 27% |
| **Professional Inpatient Visit – Collateral** | 112 | 0% | 138 | 0% | 57 | 0% | 50 | 0% | 14 | 0% |
| **Mental Health Services (MHS)** | 477,616 | 76% | 489,861 | 77% | 507,191 | 77% | 481,319 | 76% | 413,051 | 74% |
| **Professional Inpatient Visit – MHS** | 6,561 | 1% | 7,638 | 1% | 6,262 | 1% | 2,012 | 0.3% | 1,354 | 0.2% |
| **Therapeutic Behavioral Services** | 3,351 | 1% | 3,652 | 1% | 3,695 | 1% | 4,201 | 1% | 4,327 | 1% |
| **Medication Support (MS)** | 323,521 | 51% | 322,874 | 51% | 330,337 | 50% | 314,891 | 50% | 277,105 | 49% |
| **Professional Inpatient Visit – MS** | 3,565 | 1% | 3,070 | 0.5% | 2,377 | 0.4% | 2,361 | 0.4% | 3,110 | 1% |
| **Crisis Intervention (CI)** | 126,607 | 20% | 124,525 | 20% | 128,234 | 19% | 117,189 | 18% | 109,412 | 20% |
| **Professional Inpatient Visit (CI)** | 9 | 0% | 8 | 0% | 2 | 0% | -- | -- | -- | -- |

[76] This percentage reflects the percent of the total population receiving DMH services that receives the service specified. For example, in 2007, of all individuals receiving DMH services, 46% received Targeted Case Management.

## F. EVIDENCE-BASED PRACTICES AND SERVICE STRATEGIES

In order to promote resilience and recovery, SAMHSA has been tasked with creating a mental health and substance use service system that spans healthcare, employment, housing and educational sectors. This system emphasizes the use of evidence and research to enhance accountability and accurately reflect knowledge and technology that is currently available. To support the translation of research into practice, SAMHSA has created the National Registry of Effective Programs and Practices (NREPP), a process for reviewing substance use and mental health service programs to identify those sufficiently supported by effectiveness research to be be considered Evidence Based Practices (EBPs). EBPs are a selection of behavioral health treatment approaches, interventions and services that have been shown in research to promote recovery and resilience and have consistently demonstrated positive outcomes (SAMHSA, 2010)[77].

A goal of this needs assessment is to ascertain whether the use of EBPs are available to youth and adults in California. The EBPs available in California through the DMH are Assertive Community Treatment, Supportive Employment, Supportive Housing, Family Psychoeducation, Integrated Dual Diagnosis Treatment, Illness Management and Recovery, Medication Management, New Generation Medications, Therapeutic Foster Care, Multisystemic Therapy and Functional Family Therapy.

As indicated in Table 53 below, the percent of individuals reported to be receiving an EBP is low; it was only 1% in 2010, representing 7,939 individuals. In 2009, a slightly higher percentage of individuals received an EBP (2%). As seen in Tables 55 and 56, youth received EBPs at a slightly higher rate than adults; 2% in 2010, compared to 1% of adults. National rates of EBP implementation, while higher than those seen in the California DMH, are also low. Between 2007 and 2009, SAMHSA rates ranged from a low of 6.6% to a high of 7.9% in 2009.[78] (See Appendix C, Tables 7a, b, and c)

### Table 53. Percent of overall recipients receiving an EBP

[77] Substance Use and Mental Health Services Administration (2010). *Description of a Modern Addictions and Mental Health Service System* (draft). Retrieved on December 20, 2011 from: *http://www.samhsa.gov/healthreform/docs/AddictionMHSystemBrief.pdf*

[78] Substance Use and Mental Health Services Administration (2011). *FY 2012 Online Performance Appendix*. Rockville, MD. Retrieved from: www.samhsa.gov/Budget/FY2012/SAMHSA-FY12CJ-OPA.pdf

| Evidence-Based Practice | Total N | EBP N[79] | EBP % |
|---|---|---|---|
| **2007** | 637,671 | 1,410 | 0.2% |
| **2008** | 660,134 | 8,427 | 1% |
| **2009** | 635,899 | 13,102 | 2% |
| **2010** | 560,784 | 7,939 | 1% |
| **Total** | **2,494,488** | **30,878** | **1%** |

### Table 54. Percent of recipients receiving an EBP – Adults

| Evidence-Based Practice | Total N | EBP N[80] | EBP % |
|---|---|---|---|
| **2007** | 416,777 | 285 | 0.1% |
| **2008** | 430,396 | 5,171 | 1% |
| **2009** | 407,630 | 7,235 | 2% |
| **2010** | 355,243 | 4,435 | 1% |
| **Total** | **1,610,046** | **17,126** | **1%** |

### Table 55. Percent of recipients receiving an EBP – Youth

| Evidence-Based Practice | Total N | EBP N[81] | EBP % |
|---|---|---|---|
| **2007** | 220,734 | 1,125 | 1% |
| **2008** | 229,584 | 3,250 | 1% |
| **2009** | 228,100 | 5,752 | 3% |
| **2010** | 205,412 | 4,273 | 2% |
| **Total** | **883,830** | **14,400** | **2%** |

Table 56 provides additional detail regarding the type of EBPs received each year. This table shows the percentage of all EBPs received in a given year that was of a certain type. The most commonly received EBPs included Family Psycho-education (8%-15% of EBPs), Integrated Dual Diagnosis Treatment (8%-16%), Illness Management and Recovery (11%-20%), and Medication Management (28%-52%). See Appendix C, Tables 4b and 4c for breakdown of results by adults and youth.

Table 57 indicates that of those receiving multiple EBPs, the majority receives two EBPs. The percentages drop substantially at the level of 3 or more EBPs. Appendix C, Tables 6b and 6c contain a breakdown of results by adults and youth.

Appendix C, Table 8 presents the rates of EBP by county.

[79] Unduplicated EBPs
[80] Unduplicated EBPs
[81] Unduplicated EBPs

### Table 56. Share of evidence-based practices received by EBP type

| Evidence-Based Practice | CY 2007 | | CY 2008 | | CY 2009 | | CY 2010 | |
|---|---|---|---|---|---|---|---|---|
| | N | %[82] | N | % | N | % | N | % |
| **Assertive Community Treatment** | 325 | 9% | 398 | 3% | 573 | 3% | 428 | 4% |
| **Supportive Employment** | 84 | 2% | 240 | 2% | 500 | 3% | 301 | 3% |
| **Supportive Housing** | 69 | 2% | 343 | 3% | 755 | 4% | 511 | 5% |
| **Family Psycho-education** | 288 | 8% | 1,286 | 11% | 2,777 | 15% | 1,691 | 15% |
| **Integrated Dual Diagnosis Treatment** | 627 | 16% | 1,467 | 13% | 1,535 | 8% | 1,078 | 10% |
| **Illness Management & Recovery** | 778 | 20% | 1,266 | 11% | 2,308 | 13% | 1,396 | 13% |
| **Medication Management** | 1,068 | 28% | 5,966 | 52% | 9,101 | 50% | 5,229 | 48% |
| **New Generation Medications** | 17 | 0.4% | 4 | 0.03% | 21 | 0.1% | 14 | 0% |
| **Therapeutic Foster Care** | 267 | 7% | 262 | 2% | 276 | 2% | 197 | 2% |
| **Multi-systemic Therapy** | 155 | 4% | 174 | 2% | 101 | 1% | 40 | 0% |
| **Functional Family Therapy** | 127 | 3% | 148 | 1% | 130 | 1% | 114 | 1% |
| **Total** | **3,805** | **100%** | **11,554** | **100%** | **18,077** | **100%** | **10,999** | **100%** |

### Table 57. Number of recipients of multiple evidence-based practices

| Number of EBPs | CY 2007 | | CY 2008 | | CY 2009 | | CY 2010 | |
|---|---|---|---|---|---|---|---|---|
| | N | %[83] | N | % | N | % | N | % |
| **2 Evidence-Based Practices** | 846 | 79% | 877 | 68% | 1,613 | 74% | 1,011 | 76% |
| **3 Evidence-Based Practices** | 209 | 19% | 337 | 26% | 479 | 22% | 237 | 18% |
| **4 Evidence-Based Practices** | 14 | 1% | 49 | 4% | 55 | 3% | 62 | 5% |
| **5 Evidence-Based Practices** | 4 | 0.4% | 22 | 2% | 8 | 1% | 12 | 1% |
| **6 Evidence-Based Practices** | -- | -- | 7 | 1% | 4 | 0.2% | 2 | 0.2% |
| **7 Evidence-Based Practices** | -- | -- | 2 | 0.2% | 4 | 0.2% | 1 | 0.1% |
| **Total** | **1,073** | **100%** | **1,294** | **100%** | **2,183** | **100%** | **1,325** | **100%** |

SAMHSA has also identified specific service strategies that are critical to ensuring the quality of services, supporting the improvement of services and promoting collaboration among agencies around service issues. These strategies are, broadly, service delivery techniques that have demonstrated positive results. In California, these strategies include Peer and/or Family Delivered Services, Psycho-education, Family Support, Supportive Education, delivered in Partnership with Law Enforcement, Delivered in Partnership

[82] This percentage reflects the percent of total adults who received EBPs that received the specified EBP. For example, in 2007, of all adults that received an EBP, 9% received Assertive Community Treatment.
[83] This percentage represents the percent of all individuals receiving multiple EBPs that received the specified number of EBPs. For example, in 2007, of all individuals receiving more than one EBP, 79% received two EBPs.

with Health Care, Delivered in Partnership with Social Services, Delivered in Partnership with Substance Use Services, Integrated Services for Mental Health and Aging, Integrated Services for Mental Health and Developmental Disability, Ethnic-Specific Service Strategy and Age-Specific Service Strategy.

Table 58 displays the percentage of all service strategies received in a given year that was of a certain type. The most commonly received service strategies included Peer and/or Family Delivered Services (8%-12%), Psycho-education (22%-25%), Family Support (12%-21%), and Age Specific Service Strategy (13%-19%). Appendix C, Tables 6b and 6c present this data broken down by adults and youth.

### Table 58. Number of individuals receiving service strategies

| Service Strategy | CY 2007 | | CY 2008 | | CY 2009 | | CY 2010 | |
|---|---|---|---|---|---|---|---|---|
| | N | %[84] | N | % | N | % | N | % |
| **Peer and/or Family Delivered Services** | 4,848 | 12% | 5,819 | 10% | 6,281 | 8% | 6,493 | 11% |
| **Psychoeducation** | 9,728 | 25% | 14,760 | 25% | 17,810 | 22% | 13,892 | 23% |
| **Family Support** | 7,985 | 21% | 8,728 | 15% | 9,379 | 12% | 9,189 | 16% |
| **Supportive Education** | 3,112 | 8% | 4,719 | 8% | 6,909 | 9% | 4,957 | 8% |
| **Delivered in Partnership with Law Enforcement** | 956 | 2% | 2,383 | 4% | 4,256 | 5% | 2,383 | 4% |
| **Delivered in Partnership with Health Care** | 1,466 | 4% | 2,041 | 3% | 2,815 | 4% | 1,579 | 3% |
| **Delivered in Partnership with Social Services** | 2,206 | 6% | 2,616 | 4% | 3,668 | 5% | 2,235 | 4% |
| **Delivered in Partnership with Substance Use Services** | 839 | 2% | 1,900 | 3% | 3,199 | 4% | 1,644 | 3% |
| **Integrated Services for Mental Health and Aging** | 831 | 2% | 815 | 1% | 736 | 1% | 496 | 1% |
| **Integrated Services for Mental Health and Developmental Disability** | 243 | 1% | 209 | 0.3% | 164 | 0.2% | 118 | 0% |
| **Ethnic-Specific Service Strategy** | 1,566 | 4% | 6,658 | 11% | 9,177 | 12% | 5,874 | 10% |
| **Age-Specific Service Strategy** | 5,044 | 13% | 9,483 | 16% | 15,216 | 19% | 10,310 | 17% |
| **Total** | **38,824** | **100%** | **60,131** | **100%** | **79,610** | **100%** | **59,170** | **100%** |

Research has shown that the quality of implementation of EBPs strongly affects outcomes. In other words, it has been demonstrated that if two programs offer a practice that is known to be effective, the practice that maintains fidelity to the program model tends to produce better results.[85,86,87,88,89].

[84] This percentage reflects the percent of the total number of people receiving service strategies who received the specified service strategy. For example, of all individuals who received a service strategy, 12% received Peer and/or Family Delivered Services.

[85] Torrey, W., Drake, R., Dixon, L., Burns, B., Flynn, L., Rush, A., Clark, R., Klatzker, D. (2001). Implementing evidence-based practices for persons with severe mental illness. *Psychiatric Services*, 52:1

[86] Drake RE, McHugo GJ, Becker DR, et al (1996). The New Hampshire study of supported employment for people with severe mental illness. *Journal of Consulting and Clinical Psychology* 64:391–399, 1996

[87] Jerrel JM, Ridgely MS: (1999) Impact of robustness of program implementation on outcomes of clients in dual diagnosis programs. *Psychiatric Services* 50:109–112.

Unfortunately, data on the fidelity of California DMH EBPs to the researched and tested program models was not available.

## G. FUNCTIONAL LEVEL STATUS AND TRANSITIONS AMONG SERVICE RECIPIENTS

This section of the report presents a picture of the functional status of individuals served by the California DMH system, the services received (type and amount) by functional status level, and the rate of change of functional status by functional level.

### 1. Overview of the Resource Associated Functional Level System (RAFLS) framework

Figure 5, below, depicts the framework we developed for mental health planning projects. At regular intervals mental health systems take into consideration current service users that continue in care as well as recent arrivals from outside the system. Arrivals occur under a number of circumstances. They may be persons who have just been diagnosed or evaluated for a serious mental illness. They may also be persons who have had a serious mental illness for some time but who are participating in services for the first time, either under the prevailing service system or due to service system changes.

Arrivals may also be previously served persons who have left the system but are returning for service. Persons are assigned to combinations of different services based on their service needs, clinical judgments as to the effectiveness of services for a person, and on the availability of new and existing resources to meet service resource requirements. Following the delivery of services, service recipients either improve, worsen, or remain the same in terms of one or more system objective(s). They may also exit from the system. The number of persons still in need of service and continuing in a system influence the future number of persons to be served. The amount of resources consumed influences the future resources supply, and so on. [90];[91].

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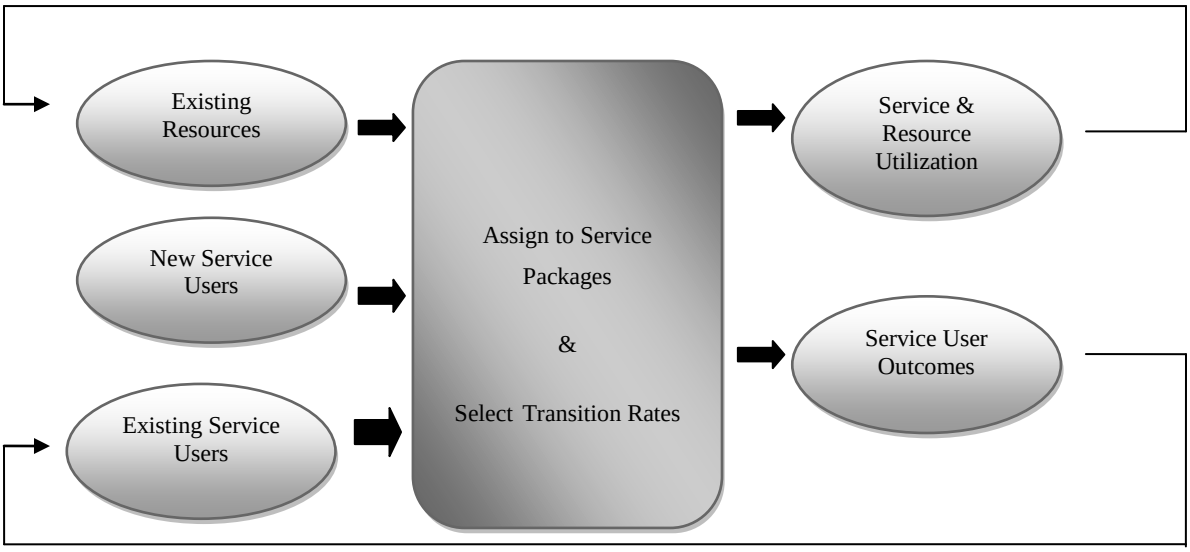
[88] McDonnell J, Nofs D, Hardman M, et al: (1989) An analysis of the procedural components of supported employment programs associated with employment outcomes. *Journal of Applied Behavioral Analysis* 22:417–428,
[89] McHugo GJ, Drake RE, Teague GB, et al. (1999) Fidelity to assertive community treatment and client outcomes in the New Hampshire dual disorders study. *Psychiatric Services* 50:818–824.

[90] Leff, H. S., Graves Sc, Natkins J, Bryan J. 1985. A system for allocating mental health resources. *Administration in Mental Health* 13 (1(Fall))::43-68.
[91] Leff, H., Dada, M, Graves, S. 1986. An LP planning model for a mental health community support system. *Management Science* 32 (2(Feb)):139-155.

## Figure 5. Mental health planning conceptual framework




As part of its dynamic planning process, TAC/HSRI calculates functional level transitional rates, which reflect individuals' fluctuation in functional level over time as they receive services in the mental health system. Functional level data may be compared to service utilization data to inform an understanding of the effectiveness of services provided. Functional levels are described using the Resource Associated Functional Levels System (RAFLS) framework[92]. The RAFLS is a global measure of functioning with seven levels paralleling the levels in the global, resource associated functional level framework. This scale has proved to have acceptable reliability.[93] The framework is described in Table 59 below. It is a "global" framework because the levels are meant to describe functional areas such as activities of daily living and community living skills, rather than individual skills. The framework is "resource associated" because the functional areas it focuses on have implications for service needs. Planners using these levels prescribe service packages focusing on the management of symptoms for persons at the lower functional levels, and prescribe services packages that focus on rehabilitation for persons at the higher levels. How people arrive to the system and the functional status of continuous users, a summary of services received by functional level and the impacts of the service packages on functional level improvement is described below. Impacts of EBP delivery on functional level improvement are also described.

[92] It is important to note that this system was developed for adults and for youth the RAFLS has only been minimally tested. Any planning exercises based on the results for youth should be reviewed carefully.
[93] Leff, H. S., Hughes, D. R., Chow, C. M., Noyes, S., & Ostrow, L. (2010). A Mental Health Allocation and Planning Simulation Model: A Mental Health Planner's Perspective. Y. Yih *Handbook of Healthcare Delivery Systems*. Boca Raton, FL: Taylor & Francis.

### Table 59. Resource associated functional level scale (v6)

| Level | Level Name | Level Description |
|---|---|---|
| **1** | At-risk | At-risk to self or others, or to property of value. Unable or unwilling to participate in one's own care or to cooperate in control of violent or aggressive behavior. May require continuous (24-hour) supervision, high staff/consumer ratio. |
| **2** | Unable to Function, Current, Acute Psychiatric Symptoms | Acute symptoms may result in behavior that is seriously disruptive or at-risk to self or others, but if so, is able/willing to control impulses with assistance and willing to participate in own care. Alternatively, acute symptoms seriously impair role functioning. Examples of acute symptoms: lack of reality testing, hallucinations or delusions, impaired judgment, impaired communication, or manic behavior. Nonetheless, may be able to carry out *some* activities of daily living. May require continuous supervision, or moderate staff/consumer ratio. |
| **3** | Lacks ADL/Personal Care Skills | Lacks ADL due to active symptoms that do not result in behavior that is seriously disruptive or dangerous. Unable or unwilling to make use of sufficient ADL and/or personal care skills to carry out basic role functions. May require continuous (24-hour) prompting, skill training, and encouragement. |
| **4** | Lacks Community Living Skills | Able to carry out ADL personal care skills. Role functioning impaired by lack of community living skills or motivation to perform. Community living skills include: money management, ability to engage in competitive employment / education, maintaining interpersonal contacts. May require regular and substantial but not necessarily continuous training, prompting, and encouragement. |
| **5** | Community Living Skills but Vulnerable to Stresses of Everyday Life | Can perform role functions, at least minimally, in familiar settings and with frequent support to deal with the ordinary stresses of everyday life; although may need the regular assistance of a roommate, homemaker-aide, family member etc., or can work outside of sheltered situations with on-site support or counseling. Requires support under the stresses associated with the frustrations of everyday life and novel situations. May require frequent (e.g., weekly) information, encouragement, and instrumental assistance. |
| **6** | Community Living Skills and Only Needs Support/Treatment to Cope with Extreme Stress or Seeks Treatment to Maintain or Enhance Personal Development | Can perform role functions adequately except under extreme or unusual stress. At these times, the support of natural or generic helpers such as: family, friends, or clergy is not sufficient. Mental health services are required for the duration of stress; or performs role functions adequately, but seeks mental health services because of feelings of persistent dissatisfaction with self or personal relationships. Intensity and duration of treatment can vary. |
| **7** | System Independent | Can obtain support from natural helpers or generic services. Does not require or seek mental health services. |

## 2. New and continuous users of the DMH system

When observing the functional levels of the population receiving DMH services, it is useful to divide users into the two categories of new and continuous users of the system. These two groups are referred to

as "arrivals"[94] – new people entering the system in a given month, and the "snapshot" population – those individuals continuously receiving services. Arrivals occur under a number of circumstances. They may be persons who have just been diagnosed or evaluated for a serious mental illness (treated incidence) They may also be persons who have had a serious mental illness for some time but who are participating in services for the first time, either under the prevailing service system or due to service system changes (latent demand becoming expressed). Arrivals may also be previously served persons who have left the system but are returning for service.

Table 60 below shows the average functional levels (1-7)[95] for both the arrivals and the snapshot populations. As shown in Table 60, around 17,000 people enter the system each month. On average, arrivals have higher needs than those individuals continuously served by the system (i.e. a lower functional level). For example, among adults an average of 6% of the arrivals population was at functional level 1, compared to only 2% of the snapshot population. The same pattern is seen in the youth data (Table 61). This higher need group of new arrivals challenges the system in particular, as it is requires the system to provide more intense services to individuals. (See Table 5a in Appendix C).

### Table 60. Arrivals and snapshots – Adults 2010

| CA Arrivals (average numbers of new persons entering the system each month) | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **FL1** | **FL2** | **FL3** | **FL4** | **FL5** | **FL6** | **FL7** | **Missing** | **Total** |
| **1,077** | 1,261 | 2,951 | 6,244 | 2,800 | 98 | 76 | 2,525 | 17,032 |
| **6%**[96] | 7% | 17% | 37% | 16% | 1% | 0.4% | 15% | 100% |
| **CA Snapshot (average number of consumers continuously serviced by the system)** | | | | | | | | |
| **FL1** | **FL2** | **FL3** | **FL4** | **FL5** | **FL6** | **FL7** | **Missing** | **Total** |
| **4,372** | 11,571 | 36,084 | 73,174 | 30,678 | 733 | 373 | 23,043 | 180,028 |
| **2%**[97] | 6% | 20% | 41% | 17% | 0.4% | 0.2% | 13% | 100% |

[94] Defined as someone who has not received a service in the three months prior to the month that service was received.
[95] Using the following GAF to RAFLS – FL1 = GAF 1-20, FL2 = GAF 21-30, FL3= GAF 31 – 40, FL4= 41-54, FL5 =55-70, FL6 = GAF 71 – 80, FL7=81-100.
[96] These percentages reflect the percent of individuals who "arrive" in the DMH system at the specified functioning level.
[97] These percentages reflect the percent of individuals who are constant in the DMH system at the specified functioning level

### Table 61. Arrivals & snapshots – Youth 2010

| CA Arrivals (average numbers of new persons entering the system each month) | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **FL1** | FL2 | FL3 | FL4 | FL5 | FL6 | FL7 | Missing | Total |
| **163** | 210 | 1,113 | 4,511 | 2,541 | 149 | 61 | 1,017 | 9,765 |
| **2%**[98] | 2% | 11% | 46% | 26% | 2% | 1% | 10% | 100% |
| **CA Snapshot (average number of consumers continuously serviced by the system)** | | | | | | | | |
| **FL1** | FL2 | FL3 | FL4 | FL5 | FL6 | FL7 | Missing | Total |
| **841** | 2,006 | 16,347 | 53,248 | 23,700 | 750 | 306 | 9,871 | 107,069 |
| **1%**[99] | 2% | 15% | 50% | 22% | 1% | 0.3% | 9% | 100% |

## 3. Service utilization by functional level

DMH services fall into three categories: 24 Hour Services, Day Services, and Outpatient Services. As seen in Tables 62 and 63, Outpatient Services are by far the most commonly received services for both adults and youth.

Twenty-four Hour Services and Day Services are received infrequently overall, with those at lower functional levels, as expected, to be the persons most likely to receive these services. For example, Hospital Inpatient services were the most commonly received 24 Hour Service, and were received by 16% of the adult population at functional level 1, 6% at functional level 2, 1% at functional level 3, and less than 1% of adults at functional levels 4-7. Among Day Services, the most commonly received services for both adults and youth included crisis stabilization – emergency department, crisis stabilization – urgent care, and day rehabilitation – full day. As would be expected, for both 24 Hour and Day Services, the average number of hours per service received decreased as functional level increased.

Among both youth and adults, a handful of Outpatient Services were received by a sizable percentage of the population. Targeted Case Management, Collateral, Mental Health Services, Medication Support, and Crisis Intervention services were the most commonly received services. Not surprisingly, unlike 24 Hour and Day Services, Outpatient Services were commonly received by individuals at higher as well as lower functional levels. Similar to 24 Hour and Day Services, the amount of service received generally decreased as function levels increased.

[98] These percentages reflect the percent of youth who "arrive" in the DMH system at the specified functioning level.
[99] These percentages reflect the percent of youth who are continuously receiving services in the DMH system at the specified functioning level

Tables 62 and 63 present a summary of the utilization in the latest year of data available. An algorithm has been developed to estimate the average amount of services received by each individual at each functional level. Designed to arrive at the average service received on a monthly basis, the algorithm can compare services that individuals actually receive to the expected services. One thing to review is whether the services are the right mix of services for the functional level (e.g. are high functioning consumers receiving rehabilitation type services and few high intensity services designed for lower functioning like residential. This information can then be used by planners as a starting point for creating the desired service package.

The best way to read the tables is to start at the service that are in the middle column (ex. hospital inpatient is the first service under 24 Hour Services). The numbers to the left are the percent of individuals that received an inpatient service in a typical month by functional level. So, 16% of FL 1 (the lowest level) received an inpatient service, 6% of FL 2's etc. Then on the right side of the service column is that average amount received for the service. For example, of 16% FL 1's that received an inpatient service, the average amount of service received was 7 days, 6 days for FL 2's etc.

## Table 62. Service utilization – Adults 2010

| Percent Receiving[100] | | | | | | | | Service | Amount Received | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **FL1** | FL2 | FL3 | FL4 | FL5 | FL6 | FL7 | Missing | | FL1 | FL2 | FL3 | FL4 | FL5 | FL6 | FL7 | Missing |
| | | | | | | | | **24-Hour Services (days unless otherwise noted)** | | | | | | | | |
| **16%** | 6% | 1% | 0.1% | 0.1% | 0% | 0.2% | 0.3% | Hospital Inpatient | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 1 |
| **3%** | 1% | 0.1% | 0% | 0% | 0% | 0% | 0.1% | Hospital Administrative Day | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 |
| **3%** | 1% | 0.3% | 0.1% | 0.1% | 0.1% | 0% | 0.4% | Psychiatric Health Facility | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 |
| **1%** | 1% | 0.1% | 0% | 0% | 0% | 2% | 0% | SNF Intensive | 4 | 5 | 6 | 9 | 6 | 0 | 15 | 13 |
| **0.4%** | 0.2% | 0% | 0% | 0% | 0% | 1% | 0% | IMD Basic (no Patch) | 15 | 16 | 12 | 13 | 4 | 0 | 22 | 8 |
| **0.1%** | 0.1% | 0% | 0% | 0% | 0% | 0.2% | 0% | IMD with Patch | 12 | 13 | 12 | 9 | 2 | 0 | 15 | 2 |
| **2%** | 1% | 0.4% | 0.1% | 0% | 0% | 0% | 0.1% | Adult Crisis Residential | 2 | 2 | 2 | 2 | 2 | 1 | 0 | 2 |
| **0%** | 0% | 0% | 0% | 0% | 0% | 0% | 0% | Jail Inpatient | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **0.1%** | 0.1% | 0.1% | 0% | 0% | 0% | 0.2% | 0% | Residential, Other | 5 | 11 | 13 | 11 | 8 | 2 | 17 | 8 |
| **0.3%** | 0.3% | 0.1% | 0% | 0% | 0% | 0% | 0% | Adult Residential | 8 | 7 | 7 | 8 | 8 | 0 | 0 | 8 |
| **0%** | 0% | 0% | 0% | 0% | 0% | 0% | 0% | Semi-Supervised Living | 1 | 3 | 6 | 6 | 6 | 0 | 0 | 8 |
| **0%** | 0% | 0% | 0% | 0% | 0% | 0% | 0% | Independent Living | 19 | 12 | 9 | 5 | 9 | 0 | 0 | 0 |
| **0.3%** | 0.3% | 0.1% | 0% | 0% | 0% | 0.1% | 0.1% | Mental Health Rehab Center | 8 | 8 | 7 | 6 | 8 | 7 | 7 | 7 |
| | | | | | | | | **Day Services (days unless otherwise noted)** | | | | | | | | |
| **17%** | 8% | 2% | 1% | 2% | 3% | 1% | 2% | Crisis Stabilization – Emergency department | 2 | 2 | 2 | 1 | 1 | 1 | 1 | 1 |
| **4%** | 3% | 2% | 1% | 0.5% | 0.4% | 0.3% | 0.3% | Crisis Stabilization – Urgent Care | 2 | 2 | 1 | 1 | 1 | 1 | 1 | 1 |
| **0%** | 0.1% | 0.1% | 0.1% | 0.2% | 0.1% | 0% | 0% | Vocational Services | 1 | 3 | 2 | 3 | 3 | 2 | 0 | 5 |
| **0.3%** | 0.2% | 0.3% | 0.3% | 0.3% | 0.2% | 0.2% | 1% | Socialization | 5 | 5 | 6 | 5 | 5 | 14 | 2 | 5 |
| **0.2%** | 0.1% | 0% | 0% | 0% | 0% | 0% | 0.1% | SNF Augmentation | 4 | 4 | 3 | 4 | 4 | 0 | 0 | 4 |
| **0%** | 0% | 0% | 0% | 0% | 0% | 0% | 0% | Day Treatment Intensive – Half Day | 0 | 0 | 19 | 18 | 0 | 0 | 0 | 0 |
| **0%** | 0.1% | 0.1% | 0% | 0% | 0% | 0% | 0% | Day Treatment Intensive – Full Day | 14 | 13 | 15 | 15 | 14 | 0 | 0 | 14 |
| **0%** | 0.1% | 0.1% | 0% | 0% | 0% | 0.1% | 0% | Day Rehabilitation – Half Day | 5 | 9 | 9 | 7 | 9 | 0 | 6 | 14 |
| **0.5%** | 1% | 1% | 0.3% | 0.2% | 0% | 0.3% | 0% | Day Rehabilitation – Full Day | 13 | 13 | 12 | 12 | 10 | 0 | 7 | 12 |
| | | | | | | | | **Outpatient Services (hours unless otherwise noted)** | | | | | | | | |
| **36%** | 37% | 33% | 29% | 25% | 21% | 25% | 15% | Targeted Case Management | 3 | 3 | 2 | 2 | 2 | 1 | 1 | 2 |
| **7%** | 8% | 6% | 5% | 5% | 3% | 4% | 4% | Collateral | 2 | 1 | 2 | 2 | 2 | 1 | 6 | 1 |
| **0%** | 0% | 0% | 0% | 0% | 0% | 0% | 0% | Professional Inpatient Visit – Collateral | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 1 |
| **37%** | 47% | 47% | 46% | 45% | 43% | 35% | 41% | Mental Health Services (MHS) | 3 | 4 | 4 | 3 | 3 | 3 | 3 | 2 |
| **0.6%** | 0.3% | 0.1% | 0% | 0.1% | 0.2% | 0.1% | 0.3% | Professional Inpatient Visit – MHS | 1 | 2 | 2 | 2 | 1 | 1 | 1 | 2 |
| **0%** | 0% | 0.1% | 0.1% | 0% | 0% | 0.1% | 0% | Therapeutic Behavioral Services | 19 | 14 | 33 | 25 | 23 | 0 | 18 | 9 |
| **35%** | 46% | 51% | 51% | 45% | 43% | 35% | 40% | Medication Support (MS) | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| **1%** | 0.4% | 0.1% | 0% | 0% | 0% | 0.1% | 2% | Professional Inpatient Visit – MS | 1 | 2 | 3 | 3 | 4 | 3 | 6 | 2 |
| **34%** | 14% | 7% | 6% | 4% | 6% | 18% | 3% | Crisis Intervention (CI) | 4 | 3 | 2 | 2 | 2 | 2 | 2 | 2 |
| **0%** | 0% | 0% | 0% | 0% | 0% | 0% | 0% | Professional Inpatient Visit (CI) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

[100] These percentages reflect the total number of adults at each functional level receiving the specified service. For example, of all adults at functional level 1, 16% receive Hospital Inpatient 24-Hour Services.

## Table 63. Service utilization – Youth 2010

| Percent Receiving[101] | | | | | | | | Service | Amount Received | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **FL1** | FL2 | FL3 | FL4 | FL5 | FL6 | FL7 | Missing | | FL1 | FL2 | FL3 | FL4 | FL5 | FL6 | FL7 | Missing |
| **24-Hour Services (days unless otherwise noted)** | | | | | | | | | | | | | | | | |
| **8%** | 4% | 0.2% | 0% | 0% | 0% | 0% | 0.1% | Hospital Inpatient | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 1 |
| **0.5%** | 0.1% | 0% | 0% | 0% | 0% | 0% | 0% | Hospital Administrative Day | 1 | 1 | 1 | 0 | 1 | 0 | 0 | 0 |
| **1%** | 1% | 0.2% | 0% | 0% | 0% | 0% | 0% | Psychiatric Health Facility | 2 | 2 | 1 | 1 | 1 | 0 | 0 | 1 |
| **0.1%** | 0% | 0% | 0% | 0% | 0% | 0% | 0% | SNF Intensive | 4 | 1 | 1 | 8 | 0 | 0 | 0 | 12 |
| **0%** | 0% | 0% | 0% | 0% | 0% | 0% | 0% | IMD Basic (no Patch) | 15 | 10 | 10 | 2 | 4 | 0 | 0 | 0 |
| **0%** | 0% | 0% | 0% | 0% | 0% | 0% | 0% | IMD with Patch | 0 | 0 | 2 | 1 | 0 | 0 | 0 | 3 |
| **0.1%** | 0.1% | 0% | 0% | 0% | 0% | 0% | 0% | Adult Crisis Residential | 2 | 3 | 2 | 2 | 3 | 2 | 0 | 2 |
| **0%** | 0% | 0% | 0% | 0% | 0% | 0% | 0% | Jail Inpatient | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **0%** | 0% | 0% | 0% | 0% | 0% | 0% | 0% | Residential, Other | 1 | 12 | 14 | 4 | 8 | 0 | 0 | 13 |
| **0%** | 0.1% | 0% | 0% | 0% | 0% | 0% | 0% | Adult Residential | 9 | 14 | 8 | 0 | 25 | 0 | 0 | 0 |
| **0%** | 0% | 0% | 0% | 0% | 0% | 0% | 0% | Semi-Supervised Living | 0 | 1 | 6 | 5 | 5 | 0 | 0 | 0 |
| **0%** | 0% | 0% | 0% | 0% | 0% | 0% | 0% | Independent Living | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **0%** | 0% | 0% | 0% | 0% | 0% | 0% | 0% | Mental Health Rehab Center | 43 | 11 | 9 | 9 | 10 | 0 | 0 | 0 |
| **Day Services (days unless otherwise noted)** | | | | | | | | | | | | | | | | |
| **10%** | 5% | 1% | 0.1% | 0.2% | 0.3% | 0% | 0.4% | Crisis Stabilization – Emergency department | 2 | 1 | 1 | 1 | 1 | 1 | 0 | 1 |
| **2%** | 2% | 1% | 0.2% | 0.1% | 0.2% | 0.2% | 0.1% | Crisis Stabilization – Urgent Care | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| **0%** | 0% | 0% | 0% | 0% | 0% | 0% | 0% | Vocational Services | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 0 |
| **0%** | 0% | 0% | 0% | 0% | 0% | 0% | 0% | Socialization | 6 | 7 | 5 | 6 | 6 | 0 | 8 | 3 |
| **0%** | 0% | 0% | 0% | 0% | 0% | 0% | 0% | SNF Augmentation | 0 | 4 | 0 | 5 | 4 | 0 | 0 | 4 |
| **0.1%** | 0.1% | 0.1% | 0% | 0% | 0% | 0% | 0% | Day Treatment Intensive – Half Day | 18 | 15 | 16 | 16 | 17 | 0 | 0 | 13 |
| **2%** | 6% | 3% | 1% | 0.3% | 0.2% | 1% | 1% | Day Treatment Intensive – Full Day | 15 | 18 | 16 | 15 | 15 | 15 | 19 | 15 |
| **0%** | 0% | 0.1% | 0.1% | 0% | 0% | 0% | 0.1% | Day Rehabilitation – Half Day | 0 | 18 | 15 | 17 | 16 | 0 | 0 | 16 |
| **2%** | 2% | 1% | 1% | 0.3% | 0.4% | 0.1% | 0.1% | Day Rehabilitation – Full Day | 17 | 18 | 17 | 15 | 14 | 6 | 15 | 16 |
| **Outpatient Services (hours unless otherwise noted)** | | | | | | | | | | | | | | | | |
| **51%** | 38% | 25% | 21% | 20% | 19% | 14% | 13% | Targeted Case Management | 3 | 3 | 3 | 2 | 2 | 2 | 2 | 2 |
| **27%** | 28% | 37% | 36% | 32% | 27% | 25% | 16% | Collateral | 3 | 3 | 2 | 2 | 2 | 2 | 2 | 2 |
| **0%** | 0% | 0% | 0% | 0% | 0% | 0% | 0% | Professional Inpatient Visit – Collateral | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **54%** | 59% | 74% | 77% | 74% | 76% | 71% | 69% | Mental Health Services (MHS) | 8 | 8 | 6 | 5 | 4 | 4 | 4 | 3 |
| **0.1%** | 0% | 0% | 0% | 0% | 0% | 0% | 0.1% | Professional Inpatient Visit – MHS | 2 | 2 | 3 | 3 | 1 | 1 | 4 | 4 |
| **4%** | 5% | 3% | 1% | 0.5% | 0.1% | 0% | 1% | Therapeutic Behavioral Services | 32 | 30 | 29 | 27 | 28 | 18 | 0 | 23 |
| **33%** | 39% | 32% | 24% | 19% | 11% | 13% | 22% | Medication Support (MS) | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| **1%** | 1% | 0.1% | 0% | 0% | 0% | 0.1% | 1% | Professional Inpatient Visit – MS | 4 | 4 | 4 | 4 | 3 | 5 | 4 | 2 |
| **35%** | 12% | 5% | 3% | 2% | 2% | 8% | 2% | Crisis Intervention (CI) | 6 | 4 | 3 | 2 | 2 | 3 | 2 | 3 |
| **0%** | 0% | 0% | 0% | 0% | 0% | 0% | 0% | Professional Inpatient Visit (CI) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

[101] These percentages reflect the total number of youth at each functional level receiving the specified service. For example, of all youth at functional level 1, 8% receive Hospital Inpatient 24-Hour Services.

## 4. Functional level transition results

For this report, functional level data were obtained from the CSI database. The project team calculated two sets of functional level transition rates, one using the functional level assessments for youth, and one for adults. Transition rates for 2010 presented in Tables 64 and 65 below. (Parallel data and tables for Years 2007-2009 may be found in Appendix C.) Functional level data may be compared to service utilization data to inform an understanding of the effectiveness of services provided. There are limitations to this approach (as described in the introductory methods section), but it is the best measure that is available to understand the impacts of of the overall service system.

Table 64 presents a grid of the percentages of adults who transitioned from one functional level to another over the 12 month period. The system exit rate (exit) is also presented. The percentages presented in bold type are the percentage of individuals at that functional level that remained at the same level. For example, 51% of adults remained at FL1, and 72% remained at FL2.

Tables 64 and 65 show that both youth and adults were most likely to remain at their current functional level rather than transition to a higher or lower level. Among individuals at FL1-3, youth were slightly more likely to improve in functional level than adults. For both adults and youth, improvements in functional level were only seen in FL1-4; improvements were not seen in individuals at FL5 and above. Finally, some individuals moved backwards (i.e. decreased in functional level).

These data also show that consumers at both the lowest and the highest functional levels are exiting the system at slightly higher rates (29% of consumers at FL 1 disappeared; 33% of consumers at FL 7 disappeared). This result is unsurprising as those at the lowest levels of functioning are most likely to disconnect from services, and those at the highest level may transition out of a need for these types of services.

The lack of increase in functional levels for the majority of individuals suggests room for improvement, which may be aided by more widespread adoption of various evidence-based practices. Additionally, implementation of EBPs may result in fewer individuals exiting from the system for negative reasons (ex. disssatifaciton with services), which in turn improves the likelihood of functional level improvement across the overall population receiving services.

## Table 64. Transitions – Adults - 2010[102]

| FL | Missing | FL1 | FL2 | FL3 | FL4 | FL5 | FL6 | FL7 | Exit |
|---|---|---|---|---|---|---|---|---|---|
| **Missing** | **68** | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 29 |
| **FL1** | 0 | **51** | 4 | 6 | 8 | 2 | 0 | 0 | 29 |
| **FL2** | 0 | 1 | **72** | 4 | 4 | 1 | 0 | 0 | 18 |
| **FL3** | 0 | 0 | 1 | **81** | 3 | 1 | 0 | 0 | 14 |
| **FL4** | 0 | 0 | 1 | 1 | **82** | 1 | 0 | 0 | 15 |
| **FL5** | 0 | 0 | 0 | 1 | 3 | **78** | 0 | 0 | 18 |
| **FL6** | 0 | 0 | 0 | 1 | 2 | 2 | **70** | 0 | 25 |
| **FL7** | 0 | 0 | 2 | 3 | 4 | 2 | 0 | **56** | 33 |

| FL | Exit | Stay the Same[103] | Move Forward[104] | Move Backward[105] | Total |
|---|---|---|---|---|---|
| **FL1** | 29 | 51 | 20 | 0 | 100 |
| **FL2** | 18 | 72 | 9 | 1 | 100 |
| **FL3** | 14 | 81 | 4 | 1 | 100 |
| **FL4** | 15 | 82 | 2 | 1 | 100 |
| **FL5** | 18 | 78 | 0 | 4 | 100 |
| **FL6** | 25 | 70 | 0 | 5 | 100 |
| **FL7** | 33 | 56 | 0 | 11 | 100 |
| **Total** | **152** | **490** | **35** | **23** | |

[102] Table 64 presents a grid of the percentages of adults who transitioned from one functional level to another over the 12 month period. The exit rate (Exit) is also presented. The percentages presented in bold type are the percentage of individuals at that functional level that remained at the same level. For example, 51% of adults remained at FL1, and 72% remained at FL2.
[103] Stay the Same = No Functional Level Change
[104] Move Forward = At least one step positive step forward in functional level (as measure by GAF and crosswalked to RAFLS)
[105] Move Backward = At least one negative step backward in functional level (as measure by GAF and crosswalked to RAFLS)

### Table 65. Transitions – Youth – 2010[106]

| FL | Missing | FL1 | FL2 | FL3 | FL4 | FL5 | FL6 | FL7 | Exit |
|---|---|---|---|---|---|---|---|---|---|
| **Missing** | **69** | 0 | 0 | 0 | 2 | 2 | 0 | 0 | 27 |
| **FL1** | 0 | **56** | 4 | 10 | 11 | 2 | 0 | 0 | 17 |
| **FL2** | 0 | 2 | **75** | 4 | 6 | 1 | 0 | 0 | 12 |
| **FL3** | 0 | 0 | 0 | **85** | 4 | 1 | 0 | 0 | 10 |
| **FL4** | 0 | 0 | 0 | 1 | **85** | 2 | 0 | 0 | 12 |
| **FL5** | 0 | 0 | 0 | 1 | 3 | **78** | 0 | 0 | 18 |
| **FL6** | 0 | 0 | 0 | 1 | 2 | 2 | **58** | 0 | 37 |
| **FL7** | 0 | 0 | 0 | 1 | 4 | 3 | 0 | **53** | 39 |

| FL | Exit | Stay the Same | Move Forward | Move Backward | Total |
|---|---|---|---|---|---|
| **FL1** | 17 | 56 | 27 | 0 | 100 |
| **FL2** | 12 | 75 | 11 | 2 | 100 |
| **FL3** | 10 | 85 | 5 | 0 | 100 |
| **FL4** | 12 | 85 | 2 | 1 | 100 |
| **FL5** | 18 | 78 | 0 | 4 | 100 |
| **FL6** | 37 | 58 | 0 | 5 | 100 |
| **FL7** | 39 | 53 | 0 | 8 | 100 |
| **Total** | **145** | **490** | **45** | **20** | |

## 5. Functional level transition results for those receiving Evidence Based Practices

Table 66 presents a grid of the percentages of adults receiving Evidence Based Practices who transitioned from one functional level to another over the 12 month period. The system exit rate (exit) is also presented. The percentages in bold type represent the percent of adults at that functional level that remained at the same level. For example, 81% of adults remained at FL1, and 86% remained at FL2. In an examination on this data regarding Evidence-Based Practices, it is important to note that the DMH dataset did not include measures of EBP fidelity to program models. Rigorous fidelity to program models has been demonstrated to improve outcomes.

[106] Table 65 presents a grid of the percentages of youth that transitioned from one functional level to another over the 12 month period. The exit rate is also presented. The percentages presented in bold type are the percentage of individuals at that functional level that remained at the same level. For example, 56% of youth remained at FL1, and 75% remained at FL2.

## Table 66. Transitions - Received Evidence Based Practices – Adults 2009[107]

| FL | Missing | FL1 | FL2 | FL3 | FL4 | FL5 | FL6 | FL7 | Exit |
|---|---|---|---|---|---|---|---|---|---|
| **Missing** | **86** | 0 | 0 | 1 | 2 | 1 | 0 | 0 | 10 |
| **FL1** | 0 | **81** | 3 | 4 | 5 | 2 | 0 | 0 | 5 |
| **FL2** | 0 | 1 | **86** | 3 | 3 | 1 | 0 | 0 | 6 |
| **FL3** | 0 | 0 | 1 | **89** | 2 | 1 | 0 | 0 | 7 |
| **FL4** | 0 | 0 | 0 | 1 | **90** | 1 | 0 | 0 | 8 |
| **FL5** | 0 | 0 | 1 | 1 | 3 | **87** | 0 | 0 | 8 |
| **FL6** | 0 | 0 | 0 | 1 | 5 | 3 | **82** | 0 | 9 |
| **FL7** | 0 | 0 | 1 | 0 | 1 | 3 | 0 | **91** | 4 |

| FL | Exit | Stay the Same | Move Forward | Move Backward | Total |
|---|---|---|---|---|---|
| **FL1** | 5 | 81 | 14 | 0 | 100 |
| **FL2** | 6 | 86 | 7 | 1 | 100 |
| **FL3** | 7 | 89 | 3 | 1 | 100 |
| **FL4** | 8 | 90 | 1 | 1 | 100 |
| **FL5** | 8 | 87 | 0 | 5 | 100 |
| **FL6** | 9 | 82 | 0 | 9 | 100 |
| **FL7** | 4 | 91 | 0 | 5 | 100 |
| **TOTAL** | **47** | **606** | **25** | **22** | |

[107] Table 66 presents a grid of the percentages of adults who transitioned from one functional level to another over the 12 month period. The exit rate is also presented. The percentages presented in bold type are the percentage of individuals at that functional level that remained at the same level. For example, 81% of adults remained at FL1, and 86% remained at FL2.

Table 67 presents a grid of the percentages of adults not receiving Evidence Based Practices who transitioned between functional levels over the same 12 month period.

### Table 67. Transitions - No Evidence Based Practices – Adults 2009[108]

| FL | Missing | FL1 | FL2 | FL3 | FL4 | FL5 | FL6 | FL7 | Exit |
|---|---|---|---|---|---|---|---|---|---|
| **Missing** | **74** | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 23 |
| **FL1** | 0 | **60** | 4 | 6 | 6 | 1 | 0 | 0 | 23 |
| **FL2** | 0 | 1 | **78** | 3 | 4 | 1 | 0 | 0 | 13 |
| **FL3** | 0 | 1 | 1 | **85** | 3 | 0 | 0 | 0 | 10 |
| **FL4** | 0 | 0 | 1 | 1 | **85** | 1 | 0 | 0 | 12 |
| **FL5** | 0 | 0 | 0 | 1 | 3 | **81** | 0 | 0 | 15 |
| **FL6** | 0 | 0 | 0 | 0 | 2 | 2 | **74** | 0 | 22 |
| **FL7** | 0 | 0 | 1 | 1 | 4 | 2 | 0 | **71** | 21 |

| FL | Exit | Stay the Same | Move Forward | Move Backward | Total |
|---|---|---|---|---|---|
| **FL1** | 23 | 60 | 17 | 0 | 100 |
| **FL2** | 13 | 78 | 8 | 1 | 100 |
| **FL3** | 10 | 85 | 3 | 2 | 100 |
| **FL4** | 12 | 85 | 1 | 2 | 100 |
| **FL5** | 15 | 81 | 0 | 4 | 100 |
| **FL6** | 22 | 74 | 0 | 4 | 100 |
| **FL7** | 21 | 71 | 0 | 8 | 100 |
| **TOTAL** | **116** | **534** | **29** | **21** | |

A comparison of Tables 66 and 67 shows that both adults receiving EBPs and those not receiving EBPs were more likely to stay at their current functional level than exit the system, or transition to a higher or lower level. However, those receiving EBPs were more likely to stay at the same functional level than those not receiving EBPs. The percentage of adults not receiving EBPs who exit the system is markedly higher than those receiving EBPs who exited the system. These results indicate that the use of EBPs may aid in the retention of patients in treatment.

Among adults at functioning levels 1 and 2, those not receiving EBPs moved forward in functioning level at a higher percentage than those receiving EBPs. This may indicate that EBPs are relatively less effective for individuals in lower functioning levels.

[108] Table 67 presents a grid of the percentages of adults who transitioned from one functional level to another over the 12 month period. The exit rate is also presented. The percentages presented in bold type are the percentage of individuals at that functional level that remained at the same level. For example, 60% of adults remained at FL1, and 78% remained at FL2.

The results differ for youth. Table 68 presents a grid of the percentages of youth receiving EBPs who transitioned from one functional level to another over the 12 month period.

### Table 68. Transitions - Received Evidence Based Practices – Youth 2009[109]

| FL | Missing | FL1 | FL2 | FL3 | FL4 | FL5 | FL6 | FL7 | Exit |
|---|---|---|---|---|---|---|---|---|---|
| **Missing** | **68** | 0 | 0 | 1 | 5 | 5 | 0 | 0 | 21 |
| **FL1** | 0 | **77** | 3 | 4 | 11 | 2 | 0 | 0 | 3 |
| **FL2** | 0 | 1 | **74** | 5 | 13 | 3 | 0 | 0 | 4 |
| **FL3** | 0 | 0 | 1 | **85** | 7 | 2 | 0 | 0 | 5 |
| **FL4** | 0 | 0 | 0 | 1 | **90** | 2 | 0 | 0 | 7 |
| **FL5** | 0 | 0 | 0 | 1 | 3 | **86** | 0 | 0 | 10 |
| **FL6** | 0 | 0 | 0 | 1 | 3 | 3 | **41** | 0 | 52 |
| **FL7** | 0 | 0 | 0 | 0 | 1 | 3 | 0 | **33** | 63 |

| FL | Exit | Stay the Same | Move Forward | Move Backward | Total |
|---|---|---|---|---|---|
| **FL1** | 3 | 77 | 20 | 0 | 100 |
| **FL2** | 4 | 74 | 21 | 1 | 100 |
| **FL3** | 5 | 85 | 9 | 1 | 100 |
| **FL4** | 7 | 90 | 2 | 1 | 100 |
| **FL5** | 10 | 86 | 0 | 4 | 100 |
| **FL6** | 52 | 41 | 0 | 7 | 100 |
| **FL7** | 63 | 33 | 0 | 4 | 100 |
| **TOTAL** | **144** | **486** | **52** | **18** | |

[109] Table 68 presents a grid of the percentages of youth that transitioned from one functional level to another over the 12 month period. The exit rate is also presented. The percentages presented in bold type are the percentage of individuals at that functional level that remained at the same level. For example, 77% of youth remained at FL1, and 74% remained at FL2.

Table 69 presents a grid of the percentages of youth not receiving EBPs who transitioned between functional levels over the same 12 month period.

### Table 69. Transitions - No Evidence Based Practices – Youth 2009[110]

| FL | Missing | FL1 | FL2 | FL3 | FL4 | FL5 | FL6 | FL7 | Exit |
|---|---|---|---|---|---|---|---|---|---|
| **Missing** | **78** | 0 | 0 | 0 | 2 | 1 | 0 | 0 | 19 |
| **FL1** | 0 | **60** | 4 | 9 | 9 | 2 | 0 | 0 | 16 |
| **FL2** | 0 | 1 | **78** | 4 | 5 | 2 | 0 | 0 | 10 |
| **FL3** | 0 | 0 | 1 | **87** | 3 | 1 | 0 | 0 | 8 |
| **FL4** | 0 | 0 | 0 | 1 | **87** | 2 | 0 | 0 | 10 |
| **FL5** | 0 | 0 | 0 | 1 | 3 | **81** | 0 | 0 | 15 |
| **FL6** | 0 | 0 | 0 | 0 | 3 | 3 | **63** | 0 | 31 |
| **FL7** | 0 | 0 | 0 | 1 | 3 | 3 | 0 | **65** | 28 |

| FL | Exit | Stay the Same | Move Forward | Move Backward | Total |
|---|---|---|---|---|---|
| **FL1** | 16 | 60 | 24 | 0 | 100 |
| **FL2** | 10 | 78 | 11 | 1 | 100 |
| **FL3** | 8 | 87 | 4 | 1 | 100 |
| **FL4** | 10 | 87 | 2 | 1 | 100 |
| **FL5** | 15 | 81 | 0 | 4 | 100 |
| **FL6** | 31 | 63 | 0 | 6 | 100 |
| **FL7** | 28 | 65 | 0 | 7 | 100 |
| **TOTAL** | **118** | **521** | **41** | **20** | |

A comparison of Tables 68 and 69 demonstrates that youth in higher functioning levels receiving EBPs are more likely to exit the system than their counterparts not receiving EBPs. Similarly, youth in lower functioning levels who receive EBPs are less likely to exit than those not receiving EBPs. Youth receiving EBPs are slightly more likely to move forward functioning levels, especially those originally in FL2 and FL3. Youth not receiving EBPs are slightly more likely to move backwards in functioning level than those receiving EBPs, particularly those in functioning level 7. The above results may imply that EBPs are less effective for youth, particularly those in higher functioning levels. However, it may be that higher functioning youth are exiting the system because they have achieved a level of functioning that does not require system services. In addition to the finding that youths receiving EBP's are more likely to be retained by the system suggests a positive impact of EBP's.

[110] Table 69 presents a grid of the percentages of youth that transitioned from one functional level to another over the 12 month period. The exit rate is also presented. The percentages presented in bold type are the percentage of individuals at that functional level that remained at the same level. For example, 60% of youth remained at FL1, and 78% remained at FL2.

## H. CONCLUSION

Between the years 2006-2010, the California DMH provided a large amount of services, serving an average of 625,000 people per year. The majority of those services were outpatient, such as Case Management, Mental Health Services and Medication Support. As noted in several places in this report, many of the individuals represented in the CSI database are likely to also be represented in the Medi-Cal specialty mental health claims. Because of data limitations we were not able to identify which unique individuals are included in each database. However, information from state and county sources indicates that there is likely to be a high degree of cross-over in these databases. We also know that there are some individuals that receive only non-Medi-Cal services, so the CSI database clearly includes some number of individuals that are not included in the Medi-Cal enrollment or claims databases.

The DMH CSI database includes several items of information that are not included in the Medi-Cal files. Most important among these is the GAF score and the indication of receipt of evidence based practices. Information on homelessness and employment is also available in the CSI database. Thus, to the extent the CSI database also represents many individuals participating in Medi-Cal specialty mental health plans, the GAF and EBP information is very useful for the behavioral health service system planning activity that follows this needs assessment.

There are two issues identified in this chapter that bear further analysis. The first is the indication that only 1% of individuals receiving services are homeless. TAC/HSRI would expect a higher participation rate of people who are homeless in the safety net community mental health system. As noted in the chapter on special populations, adult who are homeless have a very high incidence of mental illness, and many such individuals are not yet enrolled in Medi-Cal.

The second issue is the very low (2%) reported rate of employment for individuals in the CSI database. As noted in the text, the national comparison in over 20% employed. This may indicate very low reporting of employment status in the CSI database or it may indicate a need to support employment related goals in service system planning.

Using the TAC/HSRI functional level transition rate model, observed the yearly rates of client movement between functional levels. A large majority of clients, both adults and youth, remained stable at one functional level. In addition, many consumers exit from the system, especially at the lower and higher

functional levels. This may reflect that higher functioning individuals may transition out of a need for services while lower functioning individuals are more likely to disconnect from services.

Between the years 2006-2010, only 1% of patients received an EBP or identified service strategies consistent with best practice, as categorized by SAMHSA. This is a low number, but there seems to be a steady increase in EBP participants, at least until last year when services resources became even more limited. As noted in the text, measures documenting the fidelity of those EBPs with program models were not available. Adults who received EBPs, when compared to those who did not receive EBPs, were more likely to stay at their current functional level. In addition, the exit rate for adults who did not receive EBPs was markedly higher than the exit rate for those that did receive EBPs.

The results for youth differ. Youth in higher functioning levels that received EBPs were more likely to exit from services than their counterparts not receiving EBPs. However, youth at lower functioning, particularly FL2 and FL3, levels who received EBPs were more likely to move up functioning levels than those not receiving EBPs.

The functional level transition model demonstrates that, overall, the services provided (or contracted) by DMH were effective in keeping individuals stable at their current level of functioning. However, there appears to be room for improvement in increasing retention of individuals in the system, and also influencing the improvement of functioning level.

The functional level transition rate models demonstrate that the effectiveness of EBPs on youth and adults differs. TAC/HSRI will work with DHCS and related stakeholders to explore how best to use the functional level transition analyses, in concert with overall service utilization and EBP utilization, as a basis for developing the mental health portion of the behavioral health systems plan.

# VII. MEDI-CAL EXPANSION POPULATION

## A. MOTIVATION FOR THIS PORTION OF THE NEEDS ASSESSMENT

### 1. Relation to the 1115 Terms and Conditions

The California 1115 Bridge to Reform Waiver Special Terms and Conditions call for a detailed analysis of behavioral health needs and gaps in California. The needs and gaps analysis is intended to focus primarily on mental health and substance use disorder needs and service gaps applicable to current and future Medi-Cal beneficiaries. Most specifically, the needs and gaps analysis must focus on the predicted behavioral health needs of the Medi-Cal expansion population anticipated for enrollment beyond the current Low Income Health Program (LIHP) plans in 2014. The newly enrolled Medi-Cal population is expected to increase demand for substance use and mental health services. The purpose of this chapter is to provide specific estimates at the state and county levels of the number of new enrollees in the expansion population that will need and want behavioral health services. These estimates can be used to project the service capacity and resources likely to be needed to meet the increased behavioral health services demand subsequent to eligibility expansion in 2014.

### 2. Specific questions to be addressed in this chapter

To obtain estimates of the numbers of new enrollees in Medi-Cal that will need and demand behavioral health services, it is necessary to respond to a number of specific questions. These are:

7. What is the estimated size of the overall Medi-Cal expansion population that will begin enrollment in 2014?
8. What is the predicted composition of the Medi-Cal expansion population?
9. What is the health/behavioral health status of the expansion population?
10. What will be the county-by-county distribution of the expansion population?
11. What proportion of the overall expansion population can be expected to want and need mental health and substance use treatment services?
12. Will there be differential effects in behavioral health needs across the counties?

### 3. Relationship to other sections of the Assessment and Plan

The estimates of the numbers of new Medi-Cal participants for the expansion population, in concert with their estimated behavioral health services needs, has direct utility to DHCS as it plans and budgets for Medi-Cal expansion in 2014 and beyond. This information will also be directly relevant to the development of the Service System Plan as specified in the Special Terms and Conditions. For example,

the information in this chapter is necessary to predict actual mental health and substance use service access and utilization over and above what has been documented in current Medi-Cal claims. This in turn will support planning for expansion and improvements in current provider and practitioner capacity within the system. In addition, the estimated behavioral health and physical health needs of the expansion population will inform planning for increased physical and behavioral health integration and coordination in the system. Finally, this information will be useful for the simulation of changes and improvements in mental health and substance use benefits designs – a critical element of the Service System Plan.

Although not directly related to Medi-Cal services for the expansion population, the estimated enrollment and service utilization of the various components of the expansion population should be useful for projecting potential changes in non-Medi-Cal public services in both the Departments of Alcohol and Drug Programs and Mental Health systems. These systems will be impacted by enrollment of currently uninsured people into Medi-Cal; and opportunities for non-Medi-Cal resource reconfiguration and redeployment are likely as a result.

## 4. Methodology

TAC/HSRI employed a number of methodologies to estimate the degree to which the Medi-Cal expansion population under the ACA will need and want substance use and mental health services. Fortunately for this analysis, there are a number of published reports that address ACA Medicaid expansion in California. These include analyses of California Health Interview Survey (CHIS) data, which provide detailed information on income, insurance status, and health needs. There are also a number of national reports that estimate behavioral health penetration and utilization among the Medicaid expansion population, which can be applied to California's unique situation. These documents have been carefully reviewed and are summarized in the literature review below.

Under the current 1115 Bridge to Reform Waiver, California has been implementing Medi-Cal expansion in anticipation of 2014 ACA implementation. This experience provides limited quantitative data and some qualitative implementation experience information that can inform full-scale Medi-Cal expansion after 2014. Because of California's unique characteristics (e.g., cultural/linguistic diversity, county-operated health plans in many jurisdictions, etc.), it has also been useful to collect information about the impact of ACA Medi-Cal expansion at the system and operational levels. Thus, many of the key informant interviews focused on issues related to the Medi-Cal expansion population including issues related to enrolling members of this population in Medi-Cal. TAC conducted key informant interviews with six of the ten counties that are early adopters of LIHP.

TAC/HSRI have also analyzed current Medi-Cal claims data for information that can inform estimates of the potential substance use and mental health service utilization among the new Medi-Cal expansion population. For example, data on behavioral health service utilization for Medicaid participants not enrolled in the county mental health plans under the Specialty Mental Health waiver or Drug Medi-Cal can provide insight into the potential service access and utilization patterns of the expansion population under a benchmark plan. Current Medi-Cal claims data has also provided statewide county-level estimates of the gaps between the prevalence of mental health and substance use disorders among the Medi-Cal population and the number of behavioral health service participants in the currently enrolled population (See Chapter IV).

### 5. Logic model for the analysis

TAC and HSRI have employed a step-wise logic model to generate estimates of the 2014 Medi-Cal behavioral health expansion population. This logic model starts with ranges of estimates derived from the literature of the overall expansion population. We have adjusted these estimates by subtracting the number of expansion population members anticipated to be enrolled in the LIHP prior to 2014. This overall estimate of the expansion population is then distributed to the counties using (a) current Medi-Cal mental health and substance use service participation rates by county, and (b) the proportion of people in each county below 100% of Federal Poverty Level (FPL). We then use a variety of prevalence data as well as current literature to estimate the proportion of the overall expansion population likely to need and want access to behavioral health services statewide and at the county level.

## B. LITERATURE REVIEW

As noted above, several detailed analyses have been conducted both within California and at the national level that provide useful information directly related to estimating the mental health and substance use proportions of the Medi-Cal expansion population. Information from these analytic reports can be organized to respond to the specific questions outlined in the logic model described above.

### 1. National context

California contains 12.06% of the total US population and 13.1% of the nation's people below 100% of the FPL[111] According to Kaiser Foundation data, California has about 18% of the total Medicaid enrollees and approximately 14% of the total uninsured population in the US[112] Thus, 15% to 20% of the overall impact of the national implementation of the ACA will occur within the state of California. The

111 US Census Bureau. State/County Quick Facts 2011
112 Kaiser Family Foundation *State Health Facts*, 2011

implementation challenges of ACA, particularly expansion of coverage to uninsured people in both Medi-Cal and the insurance exchange, are exponentially greater in California than in most other states.

## 2. Estimates of the overall Medi-Cal expansion population

Seven million people without health insurance reside in California.[113] Of these, the overall Medi-Cal expansion population for California has been estimated to range from:

- "Approximately three million";[114]
- 2.13 million;[115]
- 1.7 million;[116]
- 1.435 million[117]
- 1.4 million by 2016.[118]

The differences in these estimates are based primarily on assumptions about (a) theoretical versus actual eligibility to enroll[119]; (b) estimates of overall enrollment rates; and (c) estimates of the rate of Medi-Cal enrollment among the expansion population within the first two years after 2014. It should be noted that there are also estimated to be over 900,000 people in California who are currently eligible to enroll for Medi-Cal but have not done so.[120] These individuals may be included in the Lavarreda and Cabezas estimate above, which would account for much of the variation between that estimate and the other figures. There are also a number of people who have or could have Medi-Cal eligibility for part of the year and may have private insurance for part of the year. Some of these individuals might obtain health coverage through the exchange rather than Medi-Cal after 2014.

These estimates are likely to be affected by the rate of enrollment in LIHPs prior to 2014. As of October 2011, a total of 204,134 Medi-Cal Coverage Expansion (MCE) people had been enrolled in the 10

113 Kaiser Family Foundation *State Health Facts*, 2011
114 Lavarredda, S. and Cabezas, L. (2011). *Two Thirds of California's Seven Million Uninsured May Obtain Coverage Under Health Care Reform.* UCLA Center for Health Policy Research Health Policy Research Brief.
115 Pourat, N., Martinez, A, and Kominski, G (2011). *Californians Newly Eligible for Medi-Cal under Health Reform.* UCLA Center for Health Policy Research Health Policy Brief.
116 Long, P. and Gruber, J. (2011). *Projecting the Impact of the Affordable Care Act on California.* Health Affairs.
117 Pourat, N., Martinez, A, and Kominski, G. (2011). *Californians Newly Eligible for Medi-Cal under Health Reform* UCLA Center for Health Policy Research Health Policy Brief.
118 Kaiser Commission on Medicaid and the Uninsured *California's Bridge to reform Medicaid Demonstration Waiver.*
119 "…uninsured undocumented immigrants represent about 1/5 of the state's currently uninsured population." Long and Gruber 2011 *Ibid*.
120 *Ibid*.

counties implementing LIHP.[121] DHCS expects the total LIHP enrollment to be approximately 450,000 by the end of 2013.

Based on all of these considerations, TAC/HSRI concludes that the total Medi-Cal expansion population beyond 2104 will be in the range of 1.5 to 2 million additional enrollees. These ranges will be used for the subsequent analyses as described in the questions to be addressed and the logic model.

## 3. Demographic characteristics of the estimated Medi-Cal expansion population

Pourat and Kominski (2011) conducted a detailed analysis of CHIS data to estimate the socio-demographic characteristics of the Medi-Cal expansion population. Summary data from that analysis is included in Table 70.

### Table 70. Characteristics of the Medi-Cal expansion population

| Socio-demographic Characteristics | Uninsured all Year* | Uninsured Part Year |
|---|---|---|
| **Age 0 – 17** | 2% | 9% |
| **Age 18 – 26** | 26% | 43% |
| **Age 27 – 44** | 40% | 27% |
| **Age 45 – 54** | 18% | 16% |
| **Age 55 – 64** | 14% | 5% |
| **Single without children** | 57% | 56% |
| **Single with Children** | 5% | 10% |
| **Married without Children** | 15% | 11% |
| **Married with Children** | 23% | 23% |
| **White** | 30% | 32% |
| **Latino** | 41% | 38% |
| **African American** | 8% | 9% |
| **Asian/Pacific Islander** | 10% | 14% |
| **Other** | 11% | 7% |
| **Native English Speaker** | 40% | 49% |
| **Speaks English very well/well** | 36% | 33% |
| **Does not speak English well/not at all** | 23% | 19% |

* This cohort represents 1.5 million of the estimated 2.1 million uninsured population in this study.

We believe the data for the population uninsured all year is likely to be most representative of the characteristics of the expansion population most likely to enroll in Medi-Cal.

Several conclusions can be drawn from the above data. First, there is a sizeable group of youth age 18 to 26 in both sub-cohorts. Some of these youth may obtain Medi-Cal coverage up to age 26 because of

121 Department of Healthcare Services (2011). Low Income Health Program Monthly Report. Retrieved at: *http://dhcs.ca.gov/provgovpart/pages/lihp.aspx*

foster care placement. However, many of these youth are anticipated to be relatively unconnected from other supports and/or transitioning from children's behavioral health modalities to adult services. It is well known nationally that these transition age youth are difficult to engage and frequently do not meet clinical criteria for entrance into the specialty adult substance use and mental health systems. The 18 to 21 subpopulation may also be eligible for EPSDT services, which means they could receive more than the standard benchmark plan benefit design. In addition, some of the 18 to 21 cohort may be eligible for enhanced services and care coordination under the *Katie A.* Settlement.

Second, as anticipated nationally, there is a large cohort of childless single adults, and 32% of the Uninsured All Year cohort are between ages 45 and 64. As will be discussed below, there are data to suggest that these types of individuals have somewhat higher physical health and behavioral health needs than non-disabled Medicaid enrollees. However, 40% of the Uninsured All Year cohort are between the ages of 27 and 44 and are presumably no more disabled than the current Medi-Cal non-disabled population. With regard to physical health, Pourat and Kominsky (2011) state: "Despite lack of access or inconsistent access, the newly eligible population is not sicker than the current Medi-Cal population."

Third, 70% of the Uninsured All Year cohort are non-Caucasian; 41% are Latino; and 23% are reported to not speak English well or at all. As discussed in Chapter VIII of this report, Hispanic/Latino people experience behavioral health access disparities greater than all other population groups in California. Further, the lack of Hispanic/Latino provider/practitioner capacity is documented in Chapter IX of this report. The significant proportion of Hispanic/Latino people in the projected Medi-Cal expansion population also has consequences for the impact of expansion within certain counties. For example, Long and Gruber (2011) state that: "Los Angeles would account for about half of the reduction in the uninsured population." Anecdotal information suggests that 40% of the uninsured population in Los Angeles County is Hispanic/Latino.

## 4. Health and behavioral health status of the expansion population

Several national studies have projected the health and behavioral health status of the Medicaid expansion population. Perhaps the most detailed was published in 2010 by the Robert Wood Johnson Foundation and the Urban Institute[122] This study used information from the Medical Expenditure Panel Survey Household Component (MEPS-HC) to compare the health and behavioral health status of current Medicaid enrollees with the expected health and behavioral health characteristics of the expansion population. Table 71 summarizes some of this data.

122 Holohan, J., Kenny, G., & Pelletier, J. (2010). *The Health Status of New Medicaid Enrollees under Health Reform.* Urban Institute and Robert Wood Johnson Foundation.

### Table 71. Health and behavioral health status of the Medicaid expansion population

| Characteristic | All Childless Adults < 138% FPL | Medicaid Non-Disabled | Uninsured | Medicaid Disabled |
|---|---|---|---|---|
| **Excellent/good mental health (MH)** | 82.7% | 77.6% | 87.4% | 55.3%* |
| **Fair/poor MH** | 17.3% | 22.4% | 12.6% | 44.7%* |
| **Mental condition only** | 7.9% | 8.0% | 9.0% | 7.2% |
| **Mental + Physical conditions** | 16.2% | 23.4% | 8.6%* | 43.5%* |
| **Substance use** | 1.8% | 2.6% | 1.5% | 4.9% |

*Significant difference from Medicaid non-disabled at p=<.05

A key finding of this study is that that childless adults below 138% of FPL and uninsured adults are generally healthier than the current Medicaid disabled population and the Medicaid non-disabled population. The report states that only 12.6% of the uninsured report fair to poor health; 8.6% report combined mental and physical health problems; 9% report mental health conditions only; and 1.5% report substance use. It must be noted that the MEPS-HC data is self-report and thus could underestimate mental and substance use conditions. Nonetheless, the report concludes that "…on balance, new Medicaid enrollees, particularly after the enrollment period, are not likely to be markedly different from the non-disabled currently on Medicaid, since the new enrollees will be drawn from a population that is healthier than the population currently on Medicaid."[123]

This report does distinguish health and mental health status for individuals in the lower income brackets. For example, 15.8% of uninsured adults with incomes under 50% of FPL report fair/poor mental health. For those in the 50-99% FPL category, the reported percent of fair/poor mental health is 10.9. For the 100-138% FPL cohort, reported fair/poor mental health is 9.3%. For the Medicaid non-disabled, these percentages are 26.5%, 19.3% and 16.0%, respectively.[124] Kaiser estimates that non-elderly uninsured at or below 100% of FPL represent 40% of the uninsured in California.[125] Thus, although the proportions of poor/fair mental health in the uninsured population are lower than the current Medicaid non-disabled population, the lower income groups do have substantial reported mental health needs.

Because of concerns with the reliability of self-reported health, mental health and substance use status, TAC/HSRI reviewed the experiences of some states that have implemented Medicaid 1115 eligibility expansion initiatives. The Center for Health Care Strategies has accumulated data from states with

123 Holohan, J., Kenny, G., & Pelletier, J. (2010). *The Health Status of New Medicaid Enrollees under Health Reform.* Urban Institute and Robert Wood Johnson Foundation
124 Ibid.
125 Kaiser Family Foundation *State Health Facts,* 2011

existing Medicaid 1115 eligibility expansion waivers.[126] This report notes that survey data based on self reporting (such as the MEPS-HC data reported above) may under-represent health and behavioral health conditions and co-morbidity, and frequently does not include data from institutionalized populations. The report agrees with other analyses that "Individuals who are below 50% of the federal poverty level will have the highest levels of morbidity, including high rates of mental illness and substance use."[127] The following information is extracted from the Somers and Hamblin report.

**Data from Oregon 1115 eligibility expansion:**

- "Childless adults had greater utilization across all categories of services, including more than twice as many inpatient admissions, twice as many emergency department visits, [and] more than three times as many mental health/substance use visits."

**Data from the Maine 1115 eligibility expansion:**

- Mental health and substance use diagnoses account for four of the top 10, and nine of the top 20 most costly diagnoses."
- "The average PMPM for childless adults was $406. …the average monthly expenditure for TANF adults was $143, and for SSI adults it was $1,003."

**Data from the Arizona 1115:**

- "For calendar year 2010 the projected annual costs for childless adults are about halfway between those of SSI/disabled and TANF adults: Childless adults, $7,361; SSI/disabled adults, $9,428; TANF adults age 45+, $5,305."

Several conclusions can be drawn from these national data. First, individuals with the most serious health and behavioral health disabilities are likely to have already enrolled in Medicaid and thus are not likely to be heavily represented in the expansion population. This is likely true because: (a) people with serious disabilities that meet SSI and Medicaid disability criteria are more likely to also have very low incomes and thus already be financially as well as categorically eligible for Medicaid; and (b) providers seeking a source of payments for consumers with serious disabilities are likely to assist these consumers in pursuing Medicaid eligibility. Forty-eight states including California are now actively pursuing SSI eligibility

126 Somers, S. & Hamblin, A. (2010). Covering Low Income Childless Adults in Medicaid: Experiences from Selected States Center for Health Care Strategies.
127 Ibid.

through the SSI Outreach, Access, and Recovery (SOAR) project [128] and similar initiatives, with the result that enrollment rates for people with serious disabilities in these states have increased substantially.

Second, the rates of mental health and substance use disorder might not be substantially different from expected prevalence in the general population;[129] and even with higher need estimates, are not as high as the current Medicaid participant population.[130]

## 5. Adverse selection

Several national studies discuss the potential for adverse selection in the first years of enrollment of the expansion population. For example, Holohan, Kenny and Pelletier assert: "…Medicaid programs can expect some degree of adverse selection given that the uptake …is not expected to be universal." Also, as can be seen from the Medicaid expansion examples provided above, mental health and overall service penetration and costs for the expansion population have been higher than those for the non-disabled Medicaid populations in Oregon, Maine and Arizona.

There are two reasons for the potential adverse selection phenomenon. First, many childless adults, even with very low incomes, have been categorically ineligible for Medicaid. Medicaid expansion presents a first opportunity for these individuals to obtain health coverage. Second, public health and behavioral health systems have been using extremely limited non-Medicaid public resources to serve people currently ineligible for Medicaid. When these individuals become eligible, there will be a powerful incentive for public systems and providers to assure these individuals are enrolled in Medicaid.

The high behavioral health utilization and costs reported by Oregon, Maine and Arizona (see above) may be reflective of adverse selection. However, it may also reflect the realistic costs of serving somewhat more complex and disabled individuals who have been uninsured and thus disconnected from physical and behavioral health care for a long period.

For California, the potential for adverse selection has two consequences for the mental health and substance use systems. First, although the expansion population will be enrolled in managed care plans, there is likely to be a need for facilitated access to both Drug Medi-Cal and the specialty mental health plans for some portion of the expansion population. Not all members of the expansion population will have mental health and substance use service needs that can be met solely through the benchmark plan

[128] SOAR is a SAMHSA funded national project designed to increase access to SSI/SSDI for people who are experiencing homelessness and have a mental illness or a co-occurring substance use disorder. For more information go to: *http://www.prainc.com/soar/*
[129] Holohan, Kenny and Pelletier (2010). Op. cit.
[130] Somers and Hamblin (2010). Op. cit.

benefit design. Second, because of predicted higher co-morbidity of physical health and mental health and substance use issues,[131] the degree of need for multi-system Health Home models of care coordination is likely to be higher among the expansion population than for the current non-disabled Medi-Cal population.

It should be noted that adverse selection during the first two years of enrollment is not necessarily a negative consequence of Medi-Cal expansion. Because 100% FMAP will be available for the first two years of Medi-Cal expansion, the costs of engaging, stabilizing, and coordinating care for these somewhat more complex populations will be borne by the federal government. The literature suggests that the costs of the expansion population will become more like the standard Medi-Cal non-disabled population as more and more people enroll. Thus, under commonly held assumptions, higher per-person costs of the expansion population can be absorbed while FMAP is set at 100%, and these average per-person costs should be reduced during the time that FMAP is being reduced.

### 6. Conclusion from the literature review

California can expect a range of 1.5 million to 2 million new Medi-Cal enrollees as a result of Medi-Cal eligibility expansion in 2014. Overall, these individuals can be expected to be more disabled and more expensive to serve than the Medi-Cal non-disabled population, but substantially less disabled and less expensive than the current Medi-Cal disabled population. The CHIS data noted[132] above confirms these general conclusions. The mental health and substance use service needs of this expansion population is not expected to be far greater than those of the current Medi-Cal non-disabled population, although early enrollments of more disabled people could skew demand during the first two years of Medi-Cal expansion. Because of the social-demographic characteristics of the expansion population, disproportionate impacts on certain counties within the state are likely. As would be expected, this is most likely to be true for urbanized counties with high proportions of low income and ethnically diverse populations.

## C. ESTIMATES OF THE BEHAVIORAL HEALTH POPULATION IN CALIFORNIA

The above review of the literature provides concrete guidance to the task of estimating the specific characteristics of the Medi-Cal expansion population. Using the logic model described above, we can

[131] Holohan, J., Kenny, G., and Pelletier, J. (2010). *The Health Status of New Medicaid Enrollees under Health Reform* Urban Institute and Robert Wood Johnson Foundation.
[132] Grant, D., Padilla-Frausto, M., Streja, L., Aguilar-Gaxiola, S., & Caldwell, J. (2011). *Adult Mental Health in California: Findings from the 2007 California Health Interview Survey.* Los Angeles: UCLA Center for Health Policy Research.

apply information from the literature review to a variety of data sets to provide a more detailed set of estimates about the behavioral health needs of the expansion population.

## 1. Estimated size of the 2014 Medi-Cal expansion population

As noted above, TAC/HSRI estimates the total 2014 Medi-Cal expansion population will be in the range of 1.5 million to 2 million people. Based on CHIS data,[133] we anticipate that about 75% of this overall expansion population will have been uninsured for a full year before enrollment and 25% will have had some coverage (public or private) during the year prior to enrollment. These estimates take into account the projection that up to 450,000 people will have enrolled in LIHP Medi-Cal Coverage Expansion (MCE) plans prior to 2014.[134]

## 2. Predicted composition of the Medi-Cal expansion population

Using the socio-demographic estimates that Pourat and Kominsky (2011) produced from CHIS data it is possible to calculate the numbers of people in the expansion population within each cohort. Table 72 summarizes this information for both the low and high ranges of expansion population estimates. As noted above, the largest sub-cohorts of the estimated expansion population are people ages 27-44, single people without children, and people who are Latino. Needless to say, there is substantial overlap (duplication) among these three sub-cohorts.

### Table 72. Distribution of the Medi-Cal expansion population by demographic category

| Demographic characteristics | Uninsured all year 75% of expansion population | Low range estimates (N=1.0 M) | High range estimates (N=1.5 M) | Uninsured part year 25% of expansion population | Low range estimates (N=375K) | High range estimates (N=500K) |
|---|---|---|---|---|---|---|
| **Age 0 – 17** | 2% | 20,000 | 30,000 | 9% | 33,750 | 45,000 |
| **Age 18 – 26** | 26% | 260,000 | 390,000 | 43% | 161,250 | 215,000 |
| **Age 27 – 44** | 40% | 400,000 | 600,000 | 27% | 101,250 | 135,000 |
| **Age 45 – 54** | 18% | 180,000 | 270,000 | 16% | 60,000 | 80,000 |
| **Age 55 – 64** | 14% | 140,000 | 210,000 | 5% | 18,750 | 25,000 |
| **Single without children** | 57% | 570,000 | 855,000 | 56% | 210,000 | 280,000 |
| **Single with Children** | 5% | 50,000 | 75,000 | 10% | 37,500 | 50,000 |
| **Married w/o Children** | 15% | 150,000 | 225,000 | 11% | 41,250 | 55,000 |
| **Married with Children** | 23% | 230,000 | 345,000 | 23% | 86,250 | 115,000 |

133 Pourat and Kominski, (2011). Op. cit..
134 If LIHP enrollment attains the 450,000 estimate by 2014, the 1.5 million lower-range estimate is likely to be more accurate.

| | | | | | | |
|---|---|---|---|---|---|---|
| **White** | 30% | 300,000 | 450,000 | 32% | 120,000 | 160,000 |
| **Latino** | 41% | 410,000 | 615,000 | 38% | 142,500 | 190,000 |
| **African American** | 8% | 80,000 | 120000 | 9% | 33,750 | 45,000 |
| **Asian/PI** | 10% | 100,000 | 150,000 | 14% | 52,500 | 70,000 |
| **Demographic characteristics** | **Uninsured all year 75% of expansion population** | **Low range estimates (N=1.0 M)** | **High range estimates (N=1.5 M)** | **Uninsured part year 25% of expansion population** | **Low range estimates (N=375K)** | **High range estimates (N=500K)** |
| **Other** | 11% | 110,000 | 165,000 | 7% | 26,250 | 35,000 |
| **Native English Speaker** | 40% | 400,000 | 600,000 | 49% | 183,750 | 245,000 |
| **Speaks English very well/well** | 36% | 360,000 | 540,000 | 33% | 123,750 | 165,000 |
| **Does not speak English well/not at all** | 23% | 230,000 | 345,000 | 19% | 71,250 | 95,000 |

## 3. Characteristics of the Medi-Cal expansion population

The mental health and substance use prevalence estimates prepared by TAC/HSRI provide a firm basis for developing assumptions about the potential mental health and substance use service needs among the Medi-Cal expansion population. To make these calculations, TAC/HSRI used the prevalence estimation rates for the population under 200% of the federal poverty level since this cohort is assumed to be more representative of the Medi-Cal expansion population than the prevalence rates for the total population. Prevalence rates for the general population are slightly lower than the rates for the under 200% FPL population, which could result in a slight underreporting of the need for behavioral health services among the expansion population. We also use the expanded definition of mental health and substance use need, since that definition is analogous to the behavioral health service needs assumed to be available through the benchmark benefit design plans. Based on the literature review described above, we assume that many of the individuals meeting the more narrow definition of serious mental illness have already become Medi-Cal participants. This assumption cannot be held for the non-elderly adult substance use disorder population except that they are more likely to have already enrolled in Medi-Cal if they have multiple disabilities. Using the expanded definition of prevalence establishes the probable upper limits of mental health and substance use service needs among the expansion population.

The recently reported CHIS mental health data demonstrates an overall need for mental health service of 8.3%[135] (Note: the CHIS report does not address substance use disorder.) The definition used for this calculation is somewhat more restrictive than the expanded definition used for the TAC/HSRI prevalence

135 Grant, D., Padilla-Frausto, M., Streja, L., Aguilar-Gaxiola, S., & Caldwell, J. (2011). *Adult Mental Health in California: Findings from the 2007 California Health Interview Survey.* Los Angeles: UCLA Center for Health Policy Research.

estimates; however, it is less restrictive than the definition of serious mental illness. Thus, the 8.3% estimate may establish the lower boundary of the mental health need among the expansion population.

Table 73 presents a global summary of the estimates of mental health needs for the low and high ranges of the expansion population.

### Table 73. Estimated number of adults in the expansion population needing mental health or substance use services

| Cohort categories | Prevalence rates[136] | Low range (N=1.5 Million) | High range (N=2.0 Million) |
|---|---|---|---|
| **Estimated adult mental health need at 200% FPL: Expanded definition** | 18.66% | 279,900 | 373,200 |
| **Estimated adult mental health need per CHIS data** | 8.3% | 124,500 | 166,000 |
| **Estimated adult substance use service need at 200% FPL** | 7.55% | 113,250 | 151,000 |

It should be noted that the prevalence estimates do not distinguish between those people with mental and substance use disorders who ***will ask*** for services versus those who ***will not ask*** for services. The CHIS estimates include people who have symptoms of mental illness ***and*** experience discomfort or disruption from these symptoms. It is reasonable to assume that the mental health need cohort defined by the CHIS report is more likely to both need and ask for mental health services. Thus, TAC/HSRI believe that the lower estimates of mental health service demand will be more representative of the actual experience in Medi-Cal. There is no data to support a similar type of analysis for the substance use cohort. However, given that both Drug Medi-Cal and non-Medi-Cal substance use resources are very limited in California, and that many childless adults below 138% of FPL with primary substance use disorders have not previously been eligible for Medi-Cal, the demand rates for substance use services are likely to be accurately reflected in the prevalence estimates.

It should also be noted that some of the uninsured population are currently receiving safety net or other services under County DADP and DMH programs using local funds, realignment or perhaps MHSA funds. Limitations in available data prevent an exact calculation on the numbers of these individuals. It is likely that these types of individuals will be among the first enrolled in Medi-Cal when the eligibility expands in 2014.

136 For the prevalence rates from the TAC/HSRI analysis, these are an average of county prevalence rates. For the CHIS data, we have used the statewide rate. Note that the CHIS estimates do not include substance use.

## 4. Comparison of the expansion population to the current Medi-Cal population

TAC/HSRI has compared some of the expected characteristics of the Medi-Cal expansion population to the current participants in Medi-Cal. We have used two sets of information for this comparison. The first set of data describes the total Medi-Cal population in 2009 with at least one encounter of mental health or substance use services; this includes participants in the specialty mental health plans and Drug Medi-Cal as well as encounters outside of these service delivery systems. The second set of data for the comparison includes only Medi-Cal participants who had a mental health or substance use service encounter outside of the specialty plans. This latter group, which includes people in the fee-for-service program as well as the physical health plans, is assumed to be more similar to the projected expansion population than participants in the specialty mental health plans and Drug Medi-Cal. They are also more likely to use a limited benefit array similar to the current LIHP mental health benefit or the new benchmark plan essential services to be defined by DHCS based on current health plans in California.

Table 74 summarizes information from these comparisons of selected characteristics of the expansion population with current Medi-Cal participants. The most notable difference occurs across the 0-17 age grouping. This group is expected to be very small in the expansion population, primarily because so many lower-income children have already enrolled in Medi-Cal or CHIP. Almost 40% of the current participant cohort for Medi-Cal behavioral health use are age 17 and under while only 2% of the expansion population is expected to be age 17 and under. The fact that such a high proportion of the expansion population is 18 and over has significant implications for service design and provider capacity enhancements after 2014.

### Table 74. Comparison of predicted characteristics of the expansion population to the current Medi-Cal behavioral health participant population

| Characteristic | Predicted % char of exp pop | % Current Medicaid pop - total | Variance | % Current Medicaid pop non-specialty | Variance |
|---|---|---|---|---|---|
| | | | Age | | |
| **Age 0 -17** | 2.00% | 35.08% | 1654.00% | 18.52% | 826.00% |
| **Age 18 – 26** | 26.00% | 9.69% | -62.73% | 8.56% | -67.08% |
| **Age 27 – 64** | 72.00% | 49.34% | -31.47% | 58.42% | -18.86% |
| | | | Race | | |
| **White** | 30.00% | 29.53% | -1.57% | 47.17% | 57.23% |
| **African American** | 8.00% | 10.88% | 36.00% | 13.16% | 64.50% |
| **Asian/Pacific Islander** | 10.00% | 3.27% | -67.30% | 5.16% | -48.40% |
| **Latino** | 41.00% | 20.86% | -49.12% | 22.99% | -43.93% |

As expected, the age 18-26 and 27-64 cohorts comprise a substantially higher proportion of the expansion population than the current Medi-Cal behavioral health population. However, as noted above, these groups, particularly the 18-26 grouping, are likely to present less often than other age groups for behavioral health services.

Also as expected, the current penetration of Latino and Asian/Pacific Islander populations in the Medi-Cal population is lower than the predicted proportions of these groups in the expansion population. This has implications for outreach and engagement strategies and provider and practitioner capacity development post health care reform.

## 5. Distribution of the expansion population among California Counties

TAC/HSRI has used two different approaches to estimate the distribution of the expansion population among the counties. The first method is to distribute the expansion population based on the current proportion of Medi-Cal recipients in each county. This scenario assumes that, within each county, the expansion population will participate in Medi-Cal at the same rate as the current Medi-Cal enrollee population. The second method is to distribute the expansion population to each county based on the proportion of California's population at or below 100% of the FPL residing in each county. This scenario compensates for any idiosyncratic Medi-Cal enrollment patterns that have occurred over time. Also, this methodology should partially compensate for any disproportionate effects of cultural/linguistic barriers to Medi-Cal enrollment among the counties.

Table 75 summarizes the distribution of the expansion population among the counties for both the low and high ranges of the estimates based on both Medi-Cal population rates and the population at 100% FPL. As can be seen from the table, the two methods of distributing the estimated expansion population to the counties produce quite similar results. We see no substantive reason to adopt one method over the other, and for the purposes of this report, we will use both sets of estimates. However, DHCS may want to select one of the methods, or generate averages between the two sets of results, for use in the planning process going forward.

### Table 75. Distribution of the expansion population by Medicaid participation rates +FPL

| County | Number Medicaid enrolled 7,397,966 | Fraction of Medicaid enrollees | Distribution of exp pop by Medicaid part. low (1.5M) | Distribution of exp pop by Medicaid part. high (2.0M) | % of pop < 100% FPL | Distribution of exp pop by poverty (low 1.5M) | Distribution of exp pop by poverty (high 2.0M) |
|---|---|---|---|---|---|---|---|
| **Alameda** | 243,352 | 0.032894 | 49,342 | 65,789 | 2.910% | 43,650 | 58,200 |
| **Alpine** | 212 | 0.000029 | 43 | 57 | 0.004% | 58 | 78 |
| **Amador** | 4,242 | 0.000573 | 860 | 1,147 | 0.081% | 1,215 | 1,620 |
| **Butte** | 52,094 | 0.007042 | 10,562 | 14,083 | 0.769% | 11,535 | 15,380 |
| **Calaveras** | 6,574 | 0.000889 | 1,333 | 1,777 | 0.097% | 1,460 | 1,946 |
| **Colusa** | 4,645 | 0.000628 | 942 | 1,256 | 0.054% | 815 | 1,086 |
| **Contra Costa** | 137,511 | 0.018588 | 27,882 | 37,175 | 1.880% | 28,200 | 37,600 |
| **Del Norte** | 8,333 | 0.001126 | 1,690 | 2,253 | 0.125% | 1,874 | 2,498 |
| **El Dorado** | 18,649 | 0.002521 | 3,781 | 5,042 | 0.260% | 3,900 | 5,200 |
| **Fresno** | 307,147 | 0.041518 | 62,277 | 83,036 | 3.780% | 56,700 | 75,600 |
| **Glenn** | 7,211 | 0.000975 | 1,462 | 1,949 | 0.084% | 1,259 | 1,678 |
| **Humboldt** | 27,359 | 0.003698 | 5,547 | 7,396 | 0.484% | 7,260 | 9,680 |
| **Imperial** | 56,998 | 0.007705 | 11,557 | 15,409 | 0.752% | 11,280 | 15,040 |
| **Inyo** | 3,383 | 0.000457 | 686 | 915 | 0.044% | 657 | 876 |
| **Kern** | 232,379 | 0.031411 | 47,117 | 62,822 | 3.520% | 52,800 | 70,400 |
| **Kings** | 35,073 | 0.004741 | 7,111 | 9,482 | 0.564% | 8,460 | 11,280 |
| **Lake** | 17,506 | 0.002366 | 3,549 | 4,733 | 0.270% | 4,050 | 5,400 |
| **Lassen** | 5,067 | 0.000685 | 1,027 | 1,370 | 0.120% | 1,800 | 2,400 |
| **Los Angeles** | 2,382,451 | 0.322041 | 483,062 | 644,083 | 29.697% | 445,451 | 593,934 |
| **Madera** | 43,342 | 0.005859 | 8,788 | 11,717 | 0.587% | 8,805 | 11,740 |
| **Marin** | 22,210 | 0.003002 | 4,503 | 6,004 | 0.348% | 5,220 | 6,960 |
| **Mariposa** | 2,752 | 0.000372 | 558 | 744 | 0.047% | 699 | 932 |
| **Mendocino** | 22,302 | 0.003015 | 4,522 | 6,029 | 0.291% | 4,365 | 5,820 |
| **Merced** | 81,619 | 0.011033 | 16,549 | 22,065 | 1.189% | 17,835 | 23,780 |
| **Modoc** | 2,248 | 0.000304 | 456 | 608 | 0.035% | 522 | 696 |
| **Mono** | 1,254 | 0.000170 | 254 | 339 | 0.031% | 471 | 628 |
| **Monterey** | 93,797 | 0.012679 | 19,018 | 25,358 | 1.350% | 20,250 | 27,000 |
| **Napa** | 16,230 | 0.002194 | 3,291 | 4,388 | 0.222% | 3,330 | 4,440 |
| **Nevada** | 11,319 | 0.001530 | 2,295 | 3,060 | 0.189% | 2,835 | 3,780 |
| **Orange** | 433,922 | 0.058654 | 87,981 | 117,308 | 6.090% | 91,350 | 121,800 |
| **Placer** | 29,306 | 0.003961 | 5,942 | 7,923 | 0.482% | 7,230 | 9,640 |
| **Plumas** | 3,007 | 0.000406 | 610 | 813 | 0.047% | 698 | 930 |

| County | Number Medicaid enrolled 7,397,966 | Fraction of Medicaid enrollees | Distribution of exp pop by Medicaid part. low (1.5M) | Distribution of exp pop by Medicaid part. high (2.0M) | % of pop < 100% FPL | Distribution of exp pop by poverty (low 1.5M) | Distribution of exp pop by poverty (high 2.0M) |
|---|---|---|---|---|---|---|---|
| **Riverside** | 383,285 | 0.051810 | 77,714 | 103,619 | 5.753% | 86,295 | 115,060 |
| **Sacramento** | 316,277 | 0.042752 | 64,128 | 85,504 | 4.103% | 61,545 | 82,060 |
| **San Benito** | 9,860 | 0.001333 | 1,999 | 2,666 | 0.145% | 2,175 | 2,900 |
| **San Bernardino** | 459,307 | 0.062086 | 93,128 | 124,171 | 6.540% | 98,100 | 130,800 |
| **San Diego** | 422,393 | 0.057096 | 85,644 | 114,192 | 7.314% | 109,710 | 146,280 |
| **San Francisco** | 130,945 | 0.017700 | 26,550 | 35,400 | 1.780% | 26,700 | 35,600 |
| **San Joaquin** | 173,098 | 0.023398 | 35,097 | 46,796 | 2.034% | 30,510 | 40,680 |
| **San Luis Obispo** | 32,583 | 0.004404 | 6,606 | 8,809 | 0.673% | 10,095 | 13,460 |
| **San Mateo** | 72,632 | 0.009818 | 14,727 | 19,636 | 1.032% | 15,480 | 20,640 |
| **Santa Barbara** | 78,914 | 0.010667 | 16,000 | 21,334 | 1.202% | 18,030 | 24,040 |
| **Santa Clara** | 258,598 | 0.034955 | 52,433 | 69,911 | 3.065% | 45,975 | 61,300 |
| **Santa Cruz** | 41,996 | 0.005677 | 8,515 | 11,353 | 0.689% | 10,341 | 13,788 |
| **Shasta** | 40,226 | 0.005437 | 8,156 | 10,875 | 0.008% | 119 | 159 |
| **Sierra** | 529 | 0.000072 | 107 | 143 | 0.519% | 7,785 | 10,380 |
| **Siskiyou** | 10,604 | 0.001433 | 2,150 | 2,867 | 0.137% | 2,055 | 2,740 |
| **Solano** | 67,786 | 0.009163 | 13,744 | 18,326 | 0.836% | 12,542 | 16,722 |
| **Sonoma** | 60,646 | 0.008198 | 12,296 | 16,395 | 0.869% | 13,035 | 17,380 |
| **Stanislaus** | 132,589 | 0.017922 | 26,884 | 35,845 | 1.650% | 24,750 | 33,000 |
| **Sutter** | 22,497 | 0.003041 | 4,561 | 6,082 | 0.265% | 3,975 | 5,300 |
| **Tehama** | 17,831 | 0.002410 | 3,615 | 4,821 | 0.227% | 3,405 | 4,540 |
| **Trinity** | 3,017 | 0.000408 | 612 | 816 | 0.047% | 711 | 948 |
| **Tulare** | 164,923 | 0.022293 | 33,440 | 44,586 | 1.922% | 28,830 | 38,440 |
| **Tuolumne** | 8,146 | 0.001101 | 1,652 | 2,202 | 0.149% | 2,235 | 2,980 |
| **Ventura** | 124,449 | 0.016822 | 25,233 | 33,644 | 1.634% | 24,510 | 32,680 |
| **Yolo** | 30,737 | 0.004155 | 6,232 | 8,310 | 0.596% | 8,940 | 11,920 |
| **Yuba** | 20,604 | 0.002785 | 4,178 | 5,570 | 0.266% | 3,990 | 5,320 |

## 6. Behavioral health status of the expansion population by county

Attachments 1 and 2 to this chapter display the estimated mental health and substance use needs by county for the expansion population. Attachment 1 is based on the distribution of the expansion population by current Medi-Cal participation rates. Attachment 2 is based on the distribution of the expansion population based on 100% of the FPL. As noted above, the variation between these methods is minimal. TAC/HSRI has used the prevalence estimates at 200% of FPL rather than the CHIS estimates for mental health. Unlike the CHIS data, [137] the TAC/HSRI estimates are adjusted for age, ethnicity, etc., by county. This probably results in estimates of service demand for mental health that are at the high end

[137] The report does identify variations by region, but these cannot be applied county-by-county.

of the range of probability with regard to actual requests for mental health services as opposed to underlying need for mental health services.

## 7. Differential effects in behavioral health needs by county

As can be seen from Attachments 1 and 2 to this chapter, there is anticipated to be a wide range of differential impacts of the Medi-Cal expansion population at the county level. For example, Alpine County can expect between 9 and 14 new mental health service recipients as a result of the expansion in enrollment. At the same time, Los Angeles County can expect between 80,000 and 121,345 new mental health recipients.

In fact, four counties (Los Angeles, San Bernardino, Orange and San Diego) can expect to have very close to 50% of the total expansion population for both mental health and substance use services. The top 10 counties expected to be impacted by the expansion in enrollment are anticipated to account for 74% of the estimated need for mental health services and 73% of the estimated need for substance use services. Table 76 summarizes this information.

### Table 76. Top 10 counties for the Medi-Cal expansion population

| County | Number Medicaid enrolled | Fract. of Medicaid enrollees | Exp pop distribution by Medicaid part. low (1.5M) | Exp pop distribution by Medicaid part. high (2.0M) | % of MH < 200FPL prevalence | Est. MH need ( 2.0M) highest of exp pop | % of prev pop 200% FPL AOD | Est. of AOD exp pop highest need of |
|---|---|---|---|---|---|---|---|---|
| **Los Angeles** | 2,382,451 | 0.322041 | 483,062 | 644,083 | 18.84 | 121,345 | 7.42 | 47791 |
| **San Bernardino** | 459,307 | 0.062086 | 93,128 | 124,171 | 18.56 | 23,046 | 7.56 | 9387 |
| **Orange** | 433,922 | 0.058654 | 87,981 | 117,308 | 18.47 | 21,667 | 7.39 | 8669 |
| **San Diego** | 422,393 | 0.057096 | 85,644 | 114,192 | 18.86 | 21,537 | 7.64 | 8724 |
| **Riverside** | 383,285 | 0.051810 | 77,714 | 103,619 | 18.19 | 18,848 | 7.67 | 7948 |
| **Sacramento** | 316,277 | 0.042752 | 64,128 | 85,504 | 18.89 | 16,152 | 7.64 | 6532 |
| **Fresno** | 307,147 | 0.041518 | 62,277 | 83,036 | 18.42 | 15,295 | 7.5 | 6228 |
| **Santa Clara** | 258,598 | 0.034955 | 52,433 | 69,911 | 17.67 | 12,353 | 6.85 | 4789 |
| **Alameda** | 243,352 | 0.032894 | 49,342 | 65,789 | 18.48 | 12,158 | 7.23 | 4757 |
| **Kern** | 232,379 | 0.031411 | 47,117 | 62,822 | 18.49 | 11,616 | 7.51 | 4718 |
| **Total** | | | 1,102,826 | 1,470,434 | | 274,017 | | 109543 |

## 8. Conclusion

This chapter summarized information on the estimated Medi-Cal expansion population after 2014. The distributions of predicted new Medi-Cal participants, and the estimates of mental health and substance use service need by county, are built on assumptions that the overall Medi-Cal expansion population will number between 1.5 million and 2 million. As noted above, TAC/HSRI estimates that between 279,000 and 373,200 individuals within the expansion population will need (but not necessarily ask for) mental health services. A total of 113,250 to 151,000 of the overall expansion population are expected to need substance use services. There is likely to be duplication between the substance use and mental health expansion populations, so the estimates cannot be added together. As documented in previous chapters, and consistent with every other state, California experiences a large amount of unmet need for mental health and substance use services. Because 100% federal matching is available for the expansion population during the first few years, adding these people to the Medi-Cal program will not initially detract from resources for other groups, including others with potential un-met needs. In addition, converting some uninsured people into Medi-Cal should allow county DMH and DADP agencies to target non-Medi-Cal resources to other types of un-met needs. Nonetheless, the enrollment of the expansion population in Medi-Cal cannot be expected, by itself, to eliminate unmet need for mental health and substance use services.

TAC/HSRI did not attempt to estimate the number of new enrollees that might present for mental health and/or substance use services each year after expansion population enrollment starts in 2014. The estimates provided in this report represent the total need population if all qualified new enrollees actually enroll. Other states have experienced relatively slow up-take or enrollment rates in their eligibility expansion waivers. Massachusetts, which has had universal and also mandatory coverage for more than 10 years, is still at 96% coverage level, and there are anecdotal reports that low income people with substance use service needs in Massachusetts are still presenting for service without being enrolled in Medicaid or private coverage. Massachusetts is the only state with health insurance coverage similar to the ACA. All the other states implementing Medicaid expansion waivers have done it in a voluntary environment.

California will have several years of experience with enrolling uninsured people in Medi-Cal under the previous and current versions of LIHP. As noted above, it is expected that 450,000 individuals will have enrolled in LIHP by 2014. If this level of enrollments in LIHP is achieved, it is likely that the enrollment process after 2014 will be quite smooth. Much of the pent-up demand for Medi-Cal coverage will likely have already been met by those enrolling prior to 2014.

Based on Medi-Cal data from 2009, TAC/HSRI has identified a total of 554,639 unduplicated individuals that received mental health and/or substance use services during 2010. That represents 7.9% of the 7 million total Medi-Cal recipients estimated for 2009. Many states have used a 10% behavioral health penetration threshold as a performance indicator in managed care contracts. California's current penetration of 7.9% is somewhat lower than this benchmark. The current penetration rate is based on limited access to mental health under Medi-Cal outside of the specialty mental health plans and a limited Drug Medi-Cal benefit. Thus, when parity-level essential services for mental health and substance use are included in benchmark plans for the expansion population, the penetration of mental health and substance use services can be expected to increase somewhat. Current penetration rates also differ by county, which is one reason TAC/HSRI used poverty data as well as Medi-Cal participation rates to distribute the anticipated expansion population to the counties.

For the purposes of developing the Service System Plan (the second phase of this project), TAC/HSRI expects to use the estimates of the expansion population on a county-by-county basis to project needed increases in capacity for mental health services. Current Medi-Cal mental health and substance use service penetration and utilization rates will also be used to provide more concrete estimates of increased system capacity needs. This analysis cannot be conducted until there is greater clarity about which local benchmark plan DHCS intends to use to define the essential services for mental health and substance use services for the expansion population. We expect that benefit design to be similar to but somewhat more expansive (particularly for substance use services) than the current mental health services benefit design for LIHP.

Because the Federal DHHS has decided to leave decisions about essential benefits to the states, DHCS will have some discretion within the context of the federal parity law to select mental health and substance use service benefits consistent with one of the current state employee health plans or a qualifying small market commercial insurance plan. TAC/HSRI will be able to work with DHCS in the planning process to simulate the possible utilization rates and costs of various benefit design options based on our analysis of current Medi-Cal utilization data. We can also assist to estimate the effects of Health Home enrollment, other health integration efforts, and expanded use of health information technology on utilization and costs for this newly enrolled population.

# ATTACHMENT 1: MENTAL HEALTH AND SUBSTANCE USE NEEDS BY COUNTY BASED ON CURRENT MEDI-CAL PARTICIPATION RATES

| | Number MA enrolled | fract.of MA Enrollees | Distribution of Expans POP by MA part. Low (1.5M) | Distribution of Expans POP by MA part. High (2.0) | % of Prevalence MH <200 FPL | Est MH need (2.0M) High Range | Est MH Need Low Range | AOD % of pop 200% FPL | Est of AOD Exp pop. High Range | Est of AOD Pop Low Range |
|---|---|---|---|---|---|---|---|---|---|---|
| Alameda | 243,352 | 0.032894 | 49,342 | 65,789 | 18.48 | 12,158 | 9,118 | 7.23 | 4757 | 3567 |
| Alpine | 212 | 0.000029 | 43 | 57 | 20.80 | 12 | 9 | 11.81 | 7 | 5 |
| Amador | 4,242 | 0.000573 | 860 | 1,147 | 18.35 | 210 | 158 | 8.03 | 92 | 69 |
| Butte | 52,094 | 0.007042 | 10,562 | 14,083 | 20.26 | 2,853 | 2,140 | 10.28 | 1448 | 1086 |
| Calaveras | 6,574 | 0.000889 | 1,333 | 1,777 | 18.80 | 334 | 251 | 8.25 | 147 | 110 |
| Colusa | 4,645 | 0.000628 | 942 | 1,256 | 18.20 | 229 | 171 | 7.87 | 99 | 74 |
| Contra Costa | 137,511 | 0.018588 | 27,882 | 37,175 | 18.47 | 6,866 | 5,150 | 7.7 | 2863 | 2147 |
| Del Norte | 8,333 | 0.001126 | 1,690 | 2,253 | 20.09 | 453 | 339 | 8.78 | 198 | 148 |
| El Dorado | 18,649 | 0.002521 | 3,781 | 5,042 | 19.51 | 984 | 738 | 8.83 | 445 | 334 |
| Fresno | 307,147 | 0.041518 | 62,277 | 83,036 | 18.42 | 15,295 | 11,471 | 7.5 | 6228 | 4671 |
| Glenn | 7,211 | 0.000975 | 1,462 | 1,949 | 18.83 | 367 | 275 | 7.99 | 156 | 117 |
| Humboldt | 27,359 | 0.003698 | 5,547 | 7,396 | 21.14 | 1,564 | 1,173 | 10.96 | 811 | 608 |
| Imperial | 56,998 | 0.007705 | 11,557 | 15,409 | 17.45 | 2,689 | 2,017 | 7.02 | 1082 | 811 |
| Inyo | 3,383 | 0.000457 | 686 | 915 | 19.16 | 175 | 131 | 9.45 | 86 | 65 |
| Kern | 232,379 | 0.031411 | 47,117 | 62,822 | 18.49 | 11,616 | 8,712 | 7.51 | 4718 | 3538 |
| Kings | 35,073 | 0.004741 | 7,111 | 9,482 | 18.40 | 1,745 | 1,308 | 7.29 | 691 | 518 |
| Lake | 17,506 | 0.002366 | 3,549 | 4,733 | 19.76 | 935 | 701 | 8.08 | 382 | 287 |
| Lassen | 5,067 | 0.000685 | 1,027 | 1,370 | 19.49 | 267 | 200 | 8.73 | 120 | 90 |
| Los Angeles | 2,382,451 | 0.322041 | 483,062 | 644,083 | 18.84 | 121,345 | 91,009 | 7.42 | 47791 | 35843 |
| Madera | 43,342 | 0.005859 | 8,788 | 11,717 | 18.37 | 2,152 | 1,614 | 7.3 | 855 | 642 |
| Marin | 22,210 | 0.003002 | 4,503 | 6,004 | 18.85 | 1,132 | 849 | 7.95 | 477 | 358 |
| Mariposa | 2,752 | 0.000372 | 558 | 744 | 18.60 | 138 | 104 | 8.62 | 64 | 48 |
| Mendocino | 22,302 | 0.003015 | 4,522 | 6,029 | 19.14 | 1,154 | 865 | 8.64 | 521 | 391 |
| Merced | 81,619 | 0.011033 | 16,549 | 22,065 | 17.99 | 3,970 | 2,977 | 7.51 | 1657 | 1243 |
| Modoc | 2,248 | 0.000304 | 456 | 608 | 18.98 | 115 | 87 | 9.3 | 57 | 42 |
| Mono | 1,254 | 0.000170 | 254 | 339 | 20.24 | 69 | 51 | 9.77 | 33 | 25 |
| Monterey | 93,797 | 0.012679 | 19,018 | 25,358 | 18.46 | 4,681 | 3,511 | 7.19 | 1823 | 1367 |
| Napa | 16,230 | 0.002194 | 3,291 | 4,388 | 17.81 | 781 | 586 | 6.64 | 291 | 219 |
| Nevada | 11,319 | 0.001530 | 2,295 | 3,060 | 18.54 | 567 | 425 | 8.55 | 262 | 196 |
| Orange | 433,922 | 0.058654 | 87,981 | 117,308 | 18.47 | 21,667 | 16,250 | 7.39 | 8669 | 6502 |
| Placer | 29,306 | 0.003961 | 5,942 | 7,923 | 18.65 | 1,478 | 1,108 | 7.88 | 624 | 468 |
| Plumas | 3,007 | 0.000406 | 610 | 813 | 18.72 | 152 | 114 | 9.14 | 74 | 56 |
| Riverside | 383,285 | 0.051810 | 77,714 | 103,619 | 18.19 | 18,848 | 14,136 | 7.67 | 7948 | 5961 |
| Sacramento | 316,277 | 0.042752 | 64,128 | 85,504 | 18.89 | 16,152 | 12,114 | 7.64 | 6532 | 4899 |
| San Benito | 9,860 | 0.001333 | 1,999 | 2,666 | 17.90 | 477 | 358 | 7.61 | 203 | 152 |
| San Bernardino | 459,307 | 0.062086 | 93,128 | 124,171 | 18.56 | 23,046 | 17,285 | 7.56 | 9387 | 7041 |
| San Diego | 422,393 | 0.057096 | 85,644 | 114,192 | 18.86 | 21,537 | 16,152 | 7.64 | 8724 | 6543 |
| San Francisco | 130,945 | 0.017700 | 26,550 | 35,400 | 18.12 | 6,415 | 4,811 | 7.12 | 2520 | 1890 |
| San Joaquin | 173,098 | 0.023398 | 35,097 | 46,796 | 18.06 | 8,451 | 6,339 | 6.52 | 3051 | 2288 |
| San Luis Obispo | 32,583 | 0.004404 | 6,606 | 8,809 | 20.28 | 1,786 | 1,340 | 9.66 | 851 | 638 |
| San Mateo | 72,632 | 0.009818 | 14,727 | 19,636 | 18.25 | 3,584 | 2,688 | 7.29 | 1431 | 1074 |
| Santa Barbara | 78,914 | 0.010667 | 16,000 | 21,334 | 19.32 | 4,122 | 3,091 | 8.41 | 1794 | 1346 |
| Santa Clara | 258,598 | 0.034955 | 52,433 | 69,911 | 17.67 | 12,353 | 9,265 | 6.85 | 4789 | 3592 |
| Santa Cruz | 41,996 | 0.005677 | 8,515 | 11,353 | 19.70 | 2,237 | 1,677 | 8.72 | 990 | 743 |
| Shasta | 40,226 | 0.005437 | 8,156 | 10,875 | 19.79 | 2,152 | 1,614 | 8.85 | 962 | 722 |
| Sierra | 529 | 0.000072 | 107 | 143 | 19.52 | 28 | 21 | 9.75 | 14 | 10 |
| Siskiyou | 10,604 | 0.001433 | 2,150 | 2,867 | 18.62 | 534 | 400 | 8.61 | 247 | 185 |
| Solano | 67,786 | 0.009163 | 13,744 | 18,326 | 18.34 | 3,361 | 2,521 | 7.23 | 1325 | 994 |
| Sonoma | 60,646 | 0.008198 | 12,296 | 16,395 | 19.57 | 3,209 | 2,406 | 8.29 | 1359 | 1019 |
| Stanislaus | 132,589 | 0.017922 | 26,884 | 35,845 | 18.87 | 6,764 | 5,073 | 7.29 | 2613 | 1960 |
| Sutter | 22,497 | 0.003041 | 4,561 | 6,082 | 18.33 | 1,115 | 836 | 6.71 | 408 | 306 |
| Tehama | 17,831 | 0.002410 | 3,615 | 4,821 | 19.31 | 931 | 698 | 8.68 | 418 | 314 |
| Trinity | 3,017 | 0.000408 | 612 | 816 | 18.81 | 153 | 115 | 9.48 | 77 | 58 |
| Tulare | 164,923 | 0.022293 | 33,440 | 44,586 | 18.25 | 8,137 | 6,103 | 7.55 | 3366 | 2525 |
| Tuolumne | 8,146 | 0.001101 | 1,652 | 2,202 | 19.21 | 423 | 317 | 8.15 | 179 | 135 |
| Ventura | 124,449 | 0.016822 | 25,233 | 33,644 | 18.37 | 6,180 | 4,635 | 7.69 | 2587 | 1940 |
| Yolo | 30,737 | 0.004155 | 6,232 | 8,310 | 19.59 | 1,628 | 1,221 | 9.26 | 769 | 577 |
| Yuba | 20,604 | 0.002785 | 4,178 | 5,570 | 19.69 | 1,097 | 823 | 8.23 | 458 | 344 |
| Total | ***7,397,966*** | | ***1,428,654*** | ***1,904,872*** | | ***372,871*** | ***279,654*** | | ***150533*** | ***112900*** |

# ATTACHMENT 2: MENTAL HEALTH AND SUBSTANCE USE NEEDS BY COUNTY BASED ON 100% OF FPL

| County | % of pop < 100% FPL | Distribution of Exp Pop by Poverty (low 1.5M) | Distribution of Exp Pop by Poverty (high 2.0M) | % of MH <200 FPL Prevalence | Mental Health Needs Low Range | Mental Health Needs High Range | AOD % of prev pop <200% FPL | AOD Needs Low Range | AOD Needs High Range |
|---|---|---|---|---|---|---|---|---|---|
| Alameda | 2.910% | 43,650 | 58,200 | 18.84 | 8,224 | 10,965 | 7.42 | 3239 | 4318 |
| Alpine | 0.004% | 58 | 78 | 18.56 | 11 | 14 | 7.56 | 4 | 6 |
| Amador | 0.081% | 1,215 | 1,620 | 18.47 | 224 | 299 | 7.39 | 90 | 120 |
| Butte | 0.769% | 11,535 | 15,380 | 18.86 | 2,176 | 2,901 | 7.64 | 881 | 1175 |
| Calaveras | 0.097% | 1,460 | 1,946 | 18.19 | 265 | 354 | 7.67 | 112 | 149 |
| Colusa | 0.054% | 815 | 1,086 | 18.89 | 154 | 205 | 7.64 | 62 | 83 |
| Contra Costa | 1.880% | 28,200 | 37,600 | 18.42 | 5,194 | 6,926 | 7.5 | 2115 | 2820 |
| Del Norte | 0.125% | 1,874 | 2,498 | 17.67 | 331 | 441 | 6.85 | 128 | 171 |
| El Dorado | 0.260% | 3,900 | 5,200 | 18.48 | 721 | 961 | 7.23 | 282 | 376 |
| Fresno | 3.780% | 56,700 | 75,600 | 18.49 | 10,484 | 13,978 | 7.51 | 4258 | 5678 |
| Glenn | 0.084% | 1,259 | 1,678 | 18.83 | 237 | 316 | 7.99 | 101 | 134 |
| Humboldt | 0.484% | 7,260 | 9,680 | 18.06 | 1,311 | 1,748 | 6.52 | 473 | 631 |
| Imperial | 0.752% | 11,280 | 15,040 | 18.25 | 2,059 | 2,745 | 7.55 | 852 | 1136 |
| Inyo | 0.044% | 657 | 876 | 18.47 | 121 | 162 | 7.7 | 51 | 67 |
| Kern | 3.520% | 52,800 | 70,400 | 18.87 | 9,963 | 13,284 | 7.29 | 3849 | 5132 |
| Kings | 0.564% | 8,460 | 11,280 | 18.12 | 1,533 | 2,044 | 7.12 | 602 | 803 |
| Lake | 0.270% | 4,050 | 5,400 | 18.37 | 744 | 992 | 7.69 | 311 | 415 |
| Lassen | 0.120% | 1,800 | 2,400 | 18.46 | 332 | 443 | 7.19 | 129 | 173 |
| Los Angeles | 29.697% | 445,451 | 593,934 | 17.99 | 80,137 | 106,849 | 7.51 | 33453 | 44604 |
| Madera | 0.587% | 8,805 | 11,740 | 19.32 | 1,701 | 2,268 | 8.41 | 741 | 987 |
| Marin | 0.348% | 5,220 | 6,960 | 18.25 | 953 | 1,270 | 7.29 | 381 | 507 |
| Mariposa | 0.047% | 699 | 932 | 18.34 | 128 | 171 | 7.23 | 51 | 67 |
| Mendocino | 0.291% | 4,365 | 5,820 | 19.57 | 854 | 1,139 | 8.29 | 362 | 482 |
| Merced | 1.189% | 17,835 | 23,780 | 17.45 | 3,112 | 4,150 | 7.02 | 1252 | 1669 |
| Modoc | 0.035% | 522 | 696 | 20.26 | 106 | 141 | 10.28 | 54 | 72 |
| Mono | 0.031% | 471 | 628 | 18.37 | 87 | 115 | 7.3 | 34 | 46 |
| Monterey | 1.350% | 20,250 | 27,000 | 19.70 | 3,989 | 5,319 | 8.72 | 1766 | 2354 |
| Napa | 0.222% | 3,330 | 4,440 | 19.79 | 659 | 879 | 8.85 | 295 | 393 |
| Nevada | 0.189% | 2,835 | 3,780 | 18.40 | 522 | 696 | 7.29 | 207 | 276 |
| Orange | 6.090% | 91,350 | 121,800 | 20.28 | 18,526 | 24,701 | 9.66 | 8824 | 11766 |
| Placer | 0.482% | 7,230 | 9,640 | 19.59 | 1,416 | 1,888 | 9.26 | 669 | 893 |
| Plumas | 0.047% | 698 | 930 | 18.65 | 130 | 173 | 7.88 | 55 | 73 |
| Riverside | 5.753% | 86,295 | 115,060 | 21.14 | 18,243 | 24,324 | 10.96 | 9458 | 12611 |
| Sacramento | 4.103% | 61,545 | 82,060 | 18.33 | 11,281 | 15,042 | 6.71 | 4130 | 5506 |
| San Benito | 0.145% | 2,175 | 2,900 | 19.14 | 416 | 555 | 8.64 | 188 | 251 |
| San Bernardino | 6.540% | 98,100 | 130,800 | 18.85 | 18,492 | 24,656 | 7.95 | 7799 | 10399 |
| San Diego | 7.314% | 109,710 | 146,280 | 19.69 | 21,602 | 28,803 | 8.23 | 9029 | 12039 |
| San Francisco | 1.780% | 26,700 | 35,600 | 19.51 | 5,209 | 6,946 | 8.83 | 2358 | 3143 |
| San Joaquin | 2.034% | 30,510 | 40,680 | 19.31 | 5,891 | 7,855 | 8.68 | 2648 | 3531 |
| San Luis Obispo | 0.673% | 10,095 | 13,460 | 19.76 | 1,995 | 2,660 | 8.08 | 816 | 1088 |
| San Mateo | 1.032% | 15,480 | 20,640 | 17.81 | 2,757 | 3,676 | 6.64 | 1028 | 1370 |

| County | % of pop < 100% FPL | Distribution of Exp Pop by Poverty (low 1.5M) | Distribution of Exp Pop by Poverty (high 2.0M) | % of MH <200 FPL Prevalence | Mental Health Needs Low Range | Mental Health Needs High Range | AOD % of prev pop <200% FPL | AOD Needs Low Range | AOD Needs High Range |
|---|---|---|---|---|---|---|---|---|---|
| Santa Barbara | 1.202% | 18,030 | 24,040 | 18.54 | 3,343 | 4,457 | 8.55 | 1542 | 2055 |
| Santa Clara | 3.065% | 45,975 | 61,300 | 18.62 | 8,561 | 11,414 | 8.61 | 3958 | 5278 |
| Santa Cruz | 0.689% | 10,341 | 13,788 | 17.90 | 1,851 | 2,468 | 7.61 | 787 | 1049 |
| Shasta | 0.008% | 119 | 159 | 20.09 | 24 | 32 | 8.78 | 10 | 14 |
| Sierra | 0.519% | 7,785 | 10,380 | 19.21 | 1,495 | 1,994 | 8.15 | 634 | 846 |
| Siskiyou | 0.137% | 2,055 | 2,740 | 18.83 | 387 | 516 | 7.99 | 164 | 219 |
| Solano | 0.836% | 12,542 | 16,722 | 18.80 | 2,358 | 3,144 | 8.25 | 1035 | 1380 |
| Sonoma | 0.869% | 13,035 | 17,380 | 19.49 | 2,541 | 3,387 | 8.73 | 1138 | 1517 |
| Stanislaus | 1.650% | 24,750 | 33,000 | 18.20 | 4,505 | 6,006 | 7.87 | 1948 | 2597 |
| Sutter | 0.265% | 3,975 | 5,300 | 18.35 | 729 | 973 | 8.03 | 319 | 426 |
| Tehama | 0.227% | 3,405 | 4,540 | 19.16 | 652 | 870 | 9.45 | 322 | 429 |
| Trinity | 0.047% | 711 | 948 | 18.81 | 134 | 178 | 9.48 | 67 | 90 |
| Tulare | 1.922% | 28,830 | 38,440 | 18.72 | 5,397 | 7,196 | 9.14 | 2635 | 3513 |
| Tuolumne | 0.149% | 2,235 | 2,980 | 18.60 | 416 | 554 | 8.62 | 193 | 257 |
| Ventura | 1.634% | 24,510 | 32,680 | 18.98 | 4,652 | 6,203 | 9.3 | 2279 | 3039 |
| Yolo | 0.596% | 8,940 | 11,920 | 20.24 | 1,809 | 2,413 | 9.77 | 873 | 1165 |

# VIII. MEDICAID STRATEGIES FOR SPECIAL POPULATIONS

## A. MOTIVATION FOR THIS PORTION OF THE NEEDS ASSESSMENT

### 1. Relation to 1115 Terms and Conditions

The Needs Assessment required by California's 1115 Bridge to Reform Special Terms and Conditions must answer specific questions related to the current service delivery infrastructure, capacity, and service utilization, as well as the extent to which the system is prepared to meet the mental health and substance use needs of an expanded Medi-Cal population in 2014. Critical to this assessment is an examination of the special needs of certain populations with mental health and substance use issues who are of high policy interest to the State of California. These are:

- People experiencing homelessness;
- People with substance use disorders;
- Adults exiting the criminal justice system;
- Youth involved with the child welfare or juvenile justice systems; and
- Racial, ethnic, and cultural minorities.

These populations often face significant barriers to enrolling in and maintaining Medi-Cal benefits. These also face challenges in accessing effective services that meet their unique needs based on the nature of their condition, their status and/or involvement in other systems, and/or their race, ethnicity or culture. To more effectively serve these populations, a needs assessment must encompass unique social, familial, cultural, financial and/or environmental issues such that these considerations can be factored into the design and implementation of certain aspects of the Medi-Cal program. Areas requiring particular attention include:

- Enrollment and outreach practices;
- Benefit design and service array;
- Provider qualifications and network issues; and
- Monitoring of access to and quality of mental health and substance use care.

With many members of these special population groups expected to compose a fairly significant portion of the 2014 Medicaid expansion population, the identification of strategies to engage these populations and address their special health care needs is an important component of current and future planning efforts. Without particular attention to the aforementioned components of the Medicaid program, these populations are at risk for receiving poor quality, sub-optimal care (or at risk for no care at all) – which only serves to drive Medi-Cal and other system costs upward. Health care reform – with its focus on

improving outcomes and quality of care as well as lowering costs – presents many new opportunities that can be leveraged to better meet the needs of special populations. This chapter will highlight what is known about effective Medicaid design strategies for these populations and will describe current opportunities, as well as those available (or required) under the ACA, to improve care for these populations, such as health homes for people with chronic conditions.

## 2. Why special populations?

People with mental and substance use disorders often face significant stigma and discrimination related to their conditions. These issues are compounded by stigma and discrimination related to factors such as homelessness, involvement in the justice system, and/or one's racial, ethnic or cultural identity, all of which significantly impacts the ability of these individuals to access needed services that support recovery. These populations also tend to have poor behavioral health access and service penetration rates as a result of significant structural barriers related to obtaining and maintaining Medicaid benefits, the financing of effective outreach and service interventions, and the availability of mental health and substance use providers with the specialized skills, knowledge and expertise to meet their unique needs.

**Persons who experience homelessness**. In 2009, California was estimated to have the fourth highest concentration of homeless people in the nation with 133,129 people experiencing homelessness on a given night.[138] A national survey found that among people who experience homelessness, 64% reported alcohol or drug use problems, 39% reported mental health problems, and 66% reported two or more of these problems.[139] Among chronically homeless individuals, who comprise an estimated 17% of the nation's homeless population, at least 30% have serious mental illnesses, more than 60% have substance use disorders, and high rates of co-occurring chronic health conditions are common. Homeless individuals and families have high rates of unmet service needs. One national study found that 21% of homeless individuals reported unmet need for mental health care, and that being uninsured was a predictor of the inability to access needed care.[140] A study of homeless mothers found high levels of unmet need for mental health services and an increased likelihood that their children will experience

[138] U.S. Department of Housing and Urban Development. (2010). *2009 Annual Homeless Assessment Report to Congress.* Washington, DC: U.S. Department of Housing and Urban Development, Office of Community Planning and Development.
[139] Burt, M., Aron, L., Douglas, T., Valente, J., Lee, E., & Iwen, B. (1999). *Homelessness: programs and the people they serve.* Summary report. Findings of the National Survey of Homeless Assistance Providers and Clients. Washington, DC: The Urban Institute.
[140] Baggett, T.P., O'Connell, J.J., Singer, D.E., & Rigotti, N.A. (2010). The Unmet Health Care Needs of Homeless Adults: A National Study: Discussion. *American Journal of Public Health.* 100(7).

depression or behavior problems.[141] Studies have also shown that people who are homeless and have substance use disorders are underserved by substance use treatment systems and that those with public health insurance are more likely to access at least some treatment.[142]

Given their multiple and complex needs, effective engagement and treatment of people who experience chronic homelessness is particularly challenging. Without effective treatment and housing, people who experience homelessness and have mental health and/or substance use disorders often cycle through costly care in emergency departments, hospitals, jails and prisons, as well as the streets and shelters. Many individuals and families who are homeless or are at risk of homelessness are eligible for Medicaid, yet they face significant barriers to accessing and maintaining it. Estimates are that 70% of homeless individuals are uninsured,[143] and approximately 50% of those presumed eligible are not receiving Medicaid.[144]

The expansion of eligibility as part of the ACA will allow more homeless and at-risk people to enroll in the Medi-Cal program. Additionally, opportunities available under health reform such as health homes for persons with chronic conditions can help facilitate access to needed mental health, substance use and care coordination services for people experiencing homelessness.

**Persons with substance use disorders.** While not a special population per se, persons with substance use disorders are a particularly underserved population in California who face specific access barriers and challenges to receiving appropriate treatment. The consequences of untreated substance use in adults includes involvement with the criminal justice system, inappropriate use of hospitals and emergency department care, as well as the development of serious chronic health conditions. Improving treatment access and outcomes relies in part on increased recognition that addiction is a chronic disease that can be prevented and treated. Prevention and early intervention is particularly critical for youth as evidence suggests that alcohol and other drug use increases their risk for addiction and can lead to other negative consequences such as criminal involvement, mental health issues, out of home placement, and difficulties in school. Due to the increased demand that is expected for substance use treatment as a result of

[141] Zima BT, Wells KB, Benjamin B, Duan N. (1996). Mental health problems among homeless mothers: relationship to service use and child mental health problems. *Archives of General Psychiatry,* 53(4).
[142] Wenzel, Burnam, Koegel, Morton, Jinnett, Sullivan. (2001). Access to Inpatient or Residential Substance Use Treatment Among Homeless Adults With Alcohol or Other Drug Use Disorders. *Medical Care*, 39(11).
[143] National Health Care for the Homeless Council. (2010). *Policy Brief: Reducing Medicaid Enrollment Barriers for Individuals Who are Homeless.* Nashville, TN: National Health Care for the Homeless Council.
[144] Technical Assistance Collaborative, Policy Research Associates, the Corporation for Supported Housing (2006). *Assessment of Continuum of Care Progress in Assisting Homeless People to Access Mainstream Resources*.

Medicaid expansion in 2014, the need for access to continuing and comprehensive treatment and recovery maintenance services, including age-appropriate services for youth (which are not currently a part of California's Drug Medi-Cal program), becomes even more urgent.

**Adults exiting the criminal justice system.** Adults involved in the criminal justice system have disproportionately high rates of mental and/or substance use disorders, as well as chronic health conditions, compared to the general population. National estimates are that 65% of adults in the corrections system have drug and/or alcohol use disorders,[145] 14.5% of men and 31% of women entering jail have a serious mental illness,[146] and among those, 72% have co-occurring mental and substance use disorders.[147] A study of the health care needs of the prisoner reentry population in California found that about two-thirds of California's reentry population reported having a drug use or dependence problem, yet only 22% received treatment while incarcerated. More than half reported a recent mental health problem, with about half of those receiving treatment.[148] Studies estimate that up to 85%[149] of ex-prisoners do not have health insurance, compared with about 16% of the general population. Similar to other special population groups, their service needs are complex. In addition to the substantial unmet need for mental health and substance use services, the reentry population has a range of other needs, including housing, employment, transportation and primary health care; this a group who could clearly benefit from opportunities within the ACA such as health homes. They are also more susceptible to homelessness upon release and to re-incarceration. Despite the clear need for access to treatment for mental and substance use disorders and continuity of care for this population as they transition back to the community, ex-prisoners face numerous barriers to this, including the fact that many are uninsured which limits health care access and referral options. The Public Safety Realignment Bill (AB 109) presents an opportunity to reduce the size of the state's prison population and recidivism at the same time that the ACA provides opportunities to improve access and continuity of care for the reentry population.

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[145] The National Center on Addiction and Substance Use (CASA) at Columbia University. (2010). *Behind Bars II: Substance Use and America's Prison Population.* New York, NY: Columbia University.
[146] Steadman, H.J., Osher, F.C., Robbins, P.C., et al. (2009). Prevalence of serious mental illness among jail inmates. *Psychiatric Services*, 60(6).
[147] National GAINS Center, *The Prevalence of Co-Occurring Mental Illness and Substance Use Disorders in Jails.* Retrieved from: *http://www.gainscenter.samhsa.gov/pdfs/disorders/gainsjailprev.pdf*
[147] Davis, L.M., et al. (2009). *Understanding the Public Health Implications of Prisoner Reentry in California: Phase I Report.* Santa Monica, CA: The RAND Corporation.
[148] Davis, L.M., et al. (2009). *Understanding the Public Health Implications of Prisoner Reentry in Californi : Phase I Report.* Santa Monica, CA: The RAND Corporation.
[149] Visher, C, LaVigne, N and Travis, J. (2004), *Returning Home: Understanding the Challenges of Prisoner Reentry Maryland Pilot Study: Findings from Baltimore,* Washington, D.C.: The Urban Institute; Mallik-Kane, K. (2005). *Returning Home Illinois Policy Brief: Health and Prisoner Reentry*, Washington, D.C.: The Urban Institute.

**Children involved with child welfare and/or juvenile justice.** Children in foster care have high rates of mental health, substance use, and physical health care issues. Due in part to these special health care needs, Medicaid agencies spend more money on youth in foster care than on all other non-disabled children.[150] Some studies have noted prevalence of mental health and other behavioral and developmental disorders among this population to be as high as 80%.[151, 152, 153] Indeed, youth exiting foster care are some of California's most vulnerable citizens and are at greater risk of unemployment, poor health, incarceration, homelessness, and early parenthood than the general population.[154] Rates of mental and substance use disorders among youth involved with the juvenile justice system are significant as well, with youth in California's juvenile justice system being two to four times more likely to be in need of mental health care than other youth in the state.[155] Given their unique social and familial circumstances as well as their complex health care needs, children in foster care (and the larger population of youth involved with the child welfare system) as well as those involved in juvenile justice require modification and adjustments to the usual Medicaid eligibility/enrollment policies and procedures, benefits array, and provider network. Policies that support cross-agency coordination and collaboration, including data sharing, are critical to achieving positive outcomes and helping youth and families to end their involvement with these systems.

**Racial, ethnic and cultural minorities.** Racial, ethnic and cultural minorities, including lesbian, gay, bisexual, transgender, and questioning (LGBTQ) individuals, tend to receive poorer quality of care and face greater barriers to accessing appropriate care than other populations. California is an extremely diverse state. According to DHCS' Office of Multicultural Health, which is developing a series of reports focused on racial and ethnic disparities in California, more than half of the population is non-White and one in five Californians have limited English proficiency. A major factor that contributes to behavioral health disparities for racial and ethnic minorities in California is that of cultural differences related to stigma about mental health and substance use disorders, which may lead to lower rates of perceived need and treatment-seeking. Additionally, there is a need for a culturally and linguistically competent workforce that reflects the diversity of Californians with mental health and substance use needs.

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[150] Geen, R., Sommers, A., & Cohen, M. (2005). Medicaid Spending on Foster Children. Washington, D.C.: The Urban Institute.
[151] Clausen, J.M. et.al. (1998). Mental health problems of children in foster care. *Journal of Child and Family Studies*, 7(3).
[152] Chernoff, R., et. al. (1994). Assessing the health status of children entering foster care. *Pediatrics*, 93(4).
[153] Geen, R., Sommers, A., & Cohen, M. (2005). Op. cit.
[154] Child Welfare League of America. Programs and Resources for Children Aging Out of Foster Care. Retrieved on December 5, 2011 from: *http://www.cwla.org/programs/fostercare/agingoutresources.htm*
[155] Fight Crime: Invest in Kids California. Using MHSA/Prop 63 Funding for Juvenile Justice Youth. Author.

California already has exemplary reports of state and county-specific disparities data for racial and ethnic minorities that can be useful in targeting services to further reduce disparities and improve quality of care.

Each sub-group within the LGBTQ community has its own unique behavioral health needs that are further influenced by factors such as age, race/ethnicity and socioeconomic status. While reliable information on the size of the LGBTQ population is difficult to obtain, a recent study of disparities in California found that the rate of mental health needs for sexual minorities was more than double the statewide rate.[156] Evidence also suggests that LGBTQ people have higher rates of substance use than the general population.[157] LGBTQ youth in particular tend to be at greater risk for suicide and depression, and tend to have higher rates of substance use, compared to heterosexual youth. A recent Institute of Medicine report revealed that major barriers to accessing quality health care for LGBTQ adults include a lack of providers who are knowledgeable of LGBTQ-specific issues, and fear of discrimination and mistreatment by providers particularly among elderly LGBTQ individuals. [158]

## 3. Specific questions to be addressed in this chapter

Key questions of interest in our quantitative and qualitative analysis of special populations include:

8. What are the current barriers to Medicaid enrollment for these populations, and what opportunities are available for targeting outreach and enrollment strategies?

9. What mental health and substance use benefit design and service array are effective in addressing the special mental health and substance use needs of these populations and what gaps exist in the current benefit design?

10. What range and type of providers (including special skills and competencies) are required to address the unique needs of these populations?

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[156] Grant, D., Padilla-Frausto, M., Streja, L., Aguilar-Gaxiola, S., Caldwell, J. (2011). *Adult Mental Health in California: Findings from the 2007 California Health Interview Survey.* Los Angeles: UCLA Center for Health Policy Research.
[157] Substance Use and Mental Health Services Administration. (2009). A Provider's Introduction to Substance Use Treatment for Lesbian, Gay, Bisexual, and Transgender Individuals. Rockville, MD: SAMHSA/Center for Substance Use Treatment.
[158] Institute of Medicine. (2011). The Health of Lesbian, Gay, Bisexual, and Transgender People: Building a Foundation for Better Understanding. Washington, DC: Institute of Medicine of the National Academies.

11. What can penetration rate data tell us about how well the current Medi-Cal mental health and service system is performing related to access and quality for particular special populations?

## 4. Relationship to other sections of the Assessment and Plan

This examination of the special Medi-Cal enrollment, service design and delivery issues for these particular populations is informed by several areas of the Needs Assessment included in this report, and illustrates strategies for inclusion in the subsequent Service System Plan. The previous chapter presents data on the prevalence of mental and substance use disorders among the California population and certain special populations for which data was available, providing useful information about the extent of mental health and substance use need among these populations. These data can be used to prioritize and target areas for spending; to inform the design and development of particular enrollment and outreach strategies; and/or to determine how to augment or adjust the current service system to better meet the needs of these individuals.

Chapters IV, V, and VI focus on service utilization patterns and penetration rates for mental health and substance use services in part point to whether certain groups are underserved, which will help inform the Service System Plan. In some instances, service utilization patterns may point to system issues such as differences in utilization patterns by type of care. In others, these patterns may indicate the need for enrollment and retention strategies that are necessary to ensure continuity of care for certain populations.

Findings regarding prevalence, penetration rates, and underutilization of services are important to understanding the needs of those who are likely to be part of the Medicaid expansion population, as well as current and future workforce issues. Chapter IX examines the mental health and substance use provider capacity and workforce issues outlines many characteristics – such as linguistic capacity, racial and ethnic composition, skills and competencies – with an impact on current utilization and penetration rates for certain special population groups. This information has a direct bearing on the system's ability to adequately meet the unique needs of special populations compared to the rest of the Medicaid population in 2014. Finally, examination of models of health integration and the use of behavioral health information technology point to data and cost analyses of special populations and systems improvement strategies that would enable California to ensure positive outcomes for its priority mental health and substance use service system participants and the system as a whole.

## B. METHODOLOGY

The analyses of the special Medicaid design features and strategies needed to effectively engage and treat the populations of interest consisted of both quantitative and qualitative analytic approaches. The following activities were conducted as part of this analysis:

- Review of published reports related to best practices occurring nationwide and in California related to enrollment, outreach, services, provider qualification and network, and quality monitoring for these special populations.

- Interviews with key informants about the needs and gaps related to services, enrollment mechanisms, providers, and other issues impacting the effectiveness of the system to adequately address the mental health and substance use needs of these populations were conducted and analyzed for key themes.

- Analysis of penetration rates, service utilization, and prevalence of mental health and substance use disorders for certain special populations were extracted from other sections of this Needs Assessment and used to highlight where tailored approaches or changes might be needed to better serve these populations.

## C. ANALYSIS OF AVAILABLE DATA

TAC/HSRI conducted a detailed analysis of Medi-Cal claims data to identify participation rates for certain special populations. Medi-Cal enrollment and claims data permit identification of cultural/ethnic populations in a manner that is consistent with the categories used for the prevalence estimates in Chapter III of this report. However, Medi-Cal data does not include information on other characteristics of special populations such as homelessness, criminal or juvenile justice involvement, or membership in the LGBTQ community. We have used the DMH and DADP datasets to identify people receiving mental health or substance use services that are reported to be or have been homeless or have a connection to the criminal justice system.

With regard to the cultural/ethnic subpopulation groups, TAC/HSRI compared the estimated prevalence for each group with the actual percent of that group included in the Medi-Cal claims. Tables 3a through 3e in Appendix A present detailed analyses of this information at the state level and by county.

Table 77 summarizes the percentage participation of each of the cultural/ethnic populations as a function of their estimated prevalence. The calculations are done separately for the estimated prevalence of serious mental illness (the narrow definition of MI); the estimated prevalence of other mental illness minus the prevalence of people with SMI (the broad definition of MI); and the estimated prevalence of alcohol or drug service need.

The data in Table 77 must be viewed with some caution. This is because a relatively high proportion of the Medi-Cal participants identified in each cohort did not have sufficient information in their enrollment and claims data to assign them to a subpopulation with confidence. The bottom row of Table 77 shows the percentage of individuals in the category who could not be assigned to a population group.

### Table 77. Percentage of the estimated need population represented in the 2009 Medi-Cal claims data

| Population Group | Percent of Estimated SMI Prevalence Served | Percent of MI Prevalence Served[159] | Percent of Alcohol or Drug Prevalence Served |
|---|---|---|---|
| **White – Non-Hispanic** | 12% | 2% | 1% |
| **African American – Non-Hispanic** | 22% | 3% | 3% |
| **Asian – Non-Hispanic** | 3% | 1% | 0% |
| **Pacific Islander – Non-Hispanic** | 74% | 21% | 4% |
| **Native American – Non-Hispanic** | 8% | 2% | 7% |
| **Hispanic** | 9% | 1% | 5% |
| **Percent Non-coded** | 48.6% | 24.9% | 46.6% |

It must be remembered that the prevalence estimates reflect estimated need for mental health or substance use services. The estimates do not represent "demand" or "eligibility" for services. Thus, the penetration or use rates shown here are artificially low. Nonetheless, they do represent the degree to which various subpopulations are engaged in current Medi-Cal mental health or substance use services. Thus, one can read from the table that 12% of the estimated White–Non-Hispanic service need is being addressed; 22% of the African-American service need is being addressed; and only 9% of the Hispanic service need is being addressed.[160]

[159] This category excludes, and thus is net of, the number of people included in the SMI prevalence category.
[160] The fact that a proportion of a need population is present in the Medi-Cal claims does not mean their mental health or substance use service needs are being met. It only means that this proportion of the subpopulation had one or more behavioral health claims during 2009. At the individual level, people could still have unmet needs; or could be receiving more services than they need.

TAC/HSRI also analyzed the proportion of youth under 18 in the Medi-Cal participation population compared to the estimated prevalence of serious emotional disturbance. Table 78 below summarizes this information. As with the comparisons of participation versus prevalence for cultural/ethnic groups, this data must be used with caution because there are many individuals that could not be coded into one of the special populations groups.

### Table 78. Proportion of the estimated need population for youth with Serious Emotional Disturbance compared to Medi-Cal participation

| Population Group | Percent of Estimated SED Prevalence Served by Medi-Cal |
|---|---|
| **Age 0 – 5** | 3% |
| **Age 6 – 11** | 18% |
| **Age 12 – 17** | 21% |
| **Male** | 18% |
| **Female** | 9% |
| **White – Non-Hispanic** | 10% |
| **African American – Non-Hispanic** | 17% |
| **Asian – Non-Hispanic** | 1% |
| **Pacific Islander – Non-Hispanic** | 4% |
| **Native American – Non-Hispanic** | 9% |
| **Hispanic** | 7% |
| **Percent Non-coded (for race / ethnicity only)** | 28.5% |

As with the data presented in Table 77, these data under-represent desired penetration rates because the SED estimation rates describe estimated need, not actual demand or eligibility for services. However, the differences in proportion served are instructive and can be used for future planning. For example, the proportion of male youth served is substantially higher than the proportion of female youth served. This Is not unusual given that males are often identified for services at higher rates than females. Further exploration of the phenomenon will be useful as the behavioral health system plan is developed. Also, as with the adults populations described in Table 77, the proportion of Hispanic youth participating in Medi-Cal behavioral health services is substantially lower than the proportion of White or African American youth. Further exploration of this will be useful as the system plan is developed.

As noted above, the Medi-Cal data do not include information on homelessness or criminal justice involvement. This does not mean that people who are homeless or have a criminal justice connection are excluded from Medi-Cal services. It only means that data on these factors is not included in the Medi-Cal enrollment and claims data. As noted above, for a variety of reasons, it is typical for people who are homeless and people who are incarcerated to have barriers to Medi-Cal enrollment; thus, these people may be more typically served through the public non-Medi-Cal mental health and substance use service

systems. TAC/HSRI extracted data from DMH and DADP to develop some indication of the degree to which their populations are participating in these systems.

Table 79 summarizes information on homelessness or criminal justice (CJ) involvement for both DMH and DADP for the years 2007 through 2010. Note that a single individual could be in just one category or theoretically could be in all four categories (e.g., homeless and having a criminal justice connection in both the DMH and DADP datasets). The categories are not mutually exclusive.

### Table 79. DMH and DADP enrollees with a history of homelessness or incarceration

| Characteristic | Percent for 2007 | Percent for 2008 | Percent for 2009 | Percent for 2010 |
|---|---|---|---|---|
| **DMH - Homeless** | 3% | 4% | 4% | 4% |
| **DMH – CJ Involvement** | 3% | 4% | 4% | 4% |
| **DADP – Homeless** | 18% | 18% | 19% | 20% |
| **DADP – CJ Involvement** | 57% | 57% | 55% | 50% |

The relatively high penetration of people with criminal justice involvement in the DADP data is most likely a reflection of the emphasis on service for this population under Proposition 36. The fact the resources for Proposition 36 services have ended may explain why participation of these individuals in DADP services dropped off after 2009 and may continue to drop, creating further unmet need for this population.

There will need to be further exploration of why the proportions of people who are homeless or criminal justice involved are so low in the DMH data. Based on the known mental health service needs of these populations, combined with barriers faced by these groups in accessing Medi-Cal, one would expect service participation rates within DMH to be higher. There is likely to be some underreporting of these factors within the DMH CIS data, but there may also be some system issues present as well. For example, in other state and local jurisdictions it is not uncommon for people who are homeless to receive most of their services with HUD McKinney-Vento Homeless Assistance funds, or through HRSA Health Care for the Homeless Programs. Federal policy initiatives are now emphasizing the need for people with mental illness who are homeless to gain eligibility for Medicaid and to access mainstream mental health services.

Tables 3a through 3e in Appendix A present analyses of participation rates for DMH and DADP as a function of the estimated prevalence rates for each defined subpopulation. The analysis is the same as that presented for the Medi-Cal participant population discussed above. As would be expected, penetration rates for people in the serious mental illness category are higher for DMH than for Medi-Cal.

This is primarily because the definition for SMI in the synthetic estimation calculations is similar to DMH's definition of serious mental illness for access to MHSA and county-funded services as well as for the mental health specialty plans. Also, as would be expected, penetration rates are low across the board for the DADP system, reflecting both the scarcity of resources and the large differences between the numbers of people that need substance use services versus those that actually seek treatment.

## D. Conclusion to the Data Analysis

The information presented above is just one way to assess the degree to which Medi-Cal and its companion programs in DMH and DADP is reaching and serving people with mental illness or substance use disorder. Chapters IV, V, and VI provide more in-depth analyses of service utilization patterns among all participant populations. In addition, Chapter VIII presents information on certain special populations in the estimated Medi-Cal expansion population, and Chapter IX discusses provider capacity and workforce issues related to certain special populations.

From the above data it is clear that there are gaps in service participation across all population groups and funding sources in the California public mental health and substance use service systems. Asian and Hispanic people have the lowest overall participation rates, an issue that has been reported in other studies and discussed in other sections of this report. As will be discussed below, special outreach and engagement efforts directed at these population subgroups are likely to be included in the behavioral health system planning activity that will follow this report. However, it should be noted that all population groups, not just special populations, experience low participation rates, particularly in Medi-Cal. The Medi-Cal enrollment expansion in 2014, in concert with the implementation of a standard mental health and substance use service benchmark benefit design for newly enrolled Medi-Cal participants, can be expected to increase overall participation, thereby reducing the current gaps between the need for mental health and substance use services and the actual utilization of these services.

## E. State of the Art in Medicaid Strategies for Special Populations

As the discussion above reflects, members of these special population groups have high rates of mental illness and substance use disorders as compared to the general population as well as significant unmet needs related to these conditions. This section highlights aspects of enrollment and outreach systems, covered services, quality monitoring, and provider qualifications/network design that need attention given the unique circumstances of these special populations.

## 1. Outreach, enrollment, and retention strategies

Increasing access to and retention of Medicaid benefits for members of special populations who are un-enrolled or uninsured is a critical first step to accessing the treatment and supports necessary to an individual's recovery from mental and/or substance use disorders. These special populations often require specific strategies to facilitate their enrollment in the Medicaid program. This might be due to problems such as lack of proper documentation to substantiate citizenship or finances/assets, misinformation about how enrollment in Medicaid might impact other benefits they receive, lack of a permanent address, or limited availability of transportation to get to an enrollment center. Because of the numerous challenges many special population groups have experienced in enrolling in Medicaid, the ACA requires states to establish procedures for conducting outreach to and enrolling vulnerable and underserved populations including children, unaccompanied homeless youth, racial and ethnic minorities, and individuals with mental and/or substance use disorders, which cuts across the special populations of interest to the state of California.

The ACA makes important changes to Medicaid enrollment and outreach requirements that will make it easier for states to comply with this requirement. This includes several provisions intended to simplify Medicaid enrollment and minimize administrative barriers that in the past have made the Medicaid enrollment and redetermination process difficult for many members of special populations. For example, states must use a "user-friendly" application form that will allow people to apply for all available health insurance programs offered by a state [e.g., Medicaid, CHIP, etc.] in person, via phone, online, or via mail. States must also use technology to simplify and reduce the need for documentation required to establish eligibility, and adhere to rules making the counting of income easier, which reduces historical barriers to enrollment for several of these special populations, including persons experiencing homelessness and those exiting the corrections system.

As part of the ACA reforms to Medicaid, hospitals that are qualified Medicaid providers will be allowed to make presumptive Medicaid eligibility determinations. Presumptive eligibility has been an effective strategy for facilitating enrollment in Medicaid for pregnant women and children for many years. This provision however, allows for a broader group of people to be made 'temporarily' eligible for Medicaid. This temporary eligibility determination would be in place for a certain period of time and would follow the person. For example, if a person who is homeless visits a hospital emergency department, the hospital could make a presumptive eligibility determination. If the person is then referred for follow-up care to a mental health clinic that accepts Medi-Cal, they would be able to get care at the clinic, and the clinic would be able to bill for the cost of the services. This will be an important strategy to help many

individuals in special population groups gain longer-term coverage. Readying hospitals for this change and ensuring systems are in place for hospitals to facilitate enrollment should be an important component of California's eligibility and enrollment plan.

Of course, enrolling people in Medi-Cal *prior* to their seeking care at a hospital is preferable. For some special populations, particularly those without transportation, with limited English proficiency, or who need assistance in completing the application, use of community-based organizations as enrollment and outreach brokers can be particularly helpful. For example, co-locating eligibility specialists at homeless shelters, Federally Qualified Health Centers (FQHCs), community centers, drop-in centers for transition age youth, and other community-based organizations, can be an effective strategy for enrolling many of these special population groups. Attention to the development of written materials and use of other media (billboards, flyers, website materials, social media, etc.) that is targeted to specific special populations is also critical for effective outreach and enrollment efforts.

Providers with expertise in working with people with mental health and substance use needs can also be important allies in the effort to outreach and enroll these populations. In particular, transition age youth workers, family partners, former foster youth, and members of particular racial and ethnic groups can be some of the most effective partners in outreaching and engaging underserved populations. Some states such as Massachusetts and New York offer grants to community-based organizations so they can hire staff who are reflective of the community served to conduct Medicaid outreach and enrollment activities. Other states like Oklahoma, offer free trainings and technical assistance to community organizations who can then participate as "SoonerEnroll" partners. As most community-based providers have little familiarity with enrollment policies and procedures, training this workforce in these procedures can be helpful in increasing enrollment among many of these special populations of interest. While training for community providers on the enrollment process is important, so is training county eligibility workers about working with people from special populations with mental and substance use disorders.

Certain special populations such as those exiting the adult criminal justice and the juvenile justice systems have particular issues related to their enrollment or eligibility for Medicaid. Under Federal law, states cannot receive Federal reimbursement for services provided to individuals while they are "inmates of a public institution." While Federal financial participation (FFP) is not available for services provided to individuals who meet this criteria, states do not have to terminate their Medicaid eligibility. Suspending rather than terminating eligibility while an individual is incarcerated can help avoid complicated re-instatement processes which delay access to community-based treatment upon release and/or interrupt

recovery. Policies that allow for suspension rather than termination facilitate a smoother transition to the community and can help avoid recidivism. This is also true for individuals whose benefits are terminated after short stays in jail who lose access to needed benefits and care even more quickly than those exiting prison.

Additionally, Medicaid enrollment strategies that promote enrollment prior to or at the time of release for previously ineligible individuals are also important. Making information regarding eligibility available to prisoners pre-release and allowing them to apply for Medicaid benefits before they return to the community is crucial. Furthermore, a recent analysis showed that a disproportionate number of those re-entering the community return to 11 California counties and within those counties, to certain communities.[161] This was found to be particularly true for African-Americans and Latinos. Therefore, it will be important for California to target outreach and enrollment as well as mental health and substance use service delivery capacity in these communities specific to the re-entry population.

For youth involved in the juvenile justice system, the inmate payment exception led to delays in youth accessing health care services upon their release for many years in California. However, with the passage of SB 1147, as of January 1, 2010 DHCS is required to suspend rather than terminate Medi-Cal eligibility for youth who become inmates of a public institution.[162] Further, it requires the restoration (without a new application) of Medi-Cal benefits on the day the youth is no longer an inmate.[163] SB 1147 only affects youth who were enrolled in Medi-Cal prior to their incarceration. For youth who were not previously enrolled in Medi-Cal, SB 1469 signed by Governor Schwarzenegger in 2006, requires county probation and welfare departments to ensure that Medi-Cal eligible youth committed to juvenile hall, ranch, or camp for 30 days or longer are able to establish Medi-Cal eligibility before their release and to refer those who are not eligible for Medi-Cal to the Healthy Families program. Taken together these policies should help reduce coverage gaps and promote access to needed services for youth; and provide a model for the application of similar approaches for adults.

While youth who enter the foster care system become eligible for Medi-Cal at the time of their enrollment, they are at risk of losing their eligibility when returning to their families. In 2010,

[161] Davis, L.M., et al. (2009). *Understanding the Public Health Implications of Prisoner Reentry in California : Phase I Report.* Santa Monica, CA: The RAND Corporation.
[162] Juveniles incarcerated prior to January 1, 2010 are not eligible for suspension of Medi-Cal benefits.
[163] Department of Health Care Services. (2010, March). Suspension of Medi-Cal Benefits for Incarcerated Juveniles. Letter No.: 10-06.

approximately 33,513 children exited California's foster care system.[164] Ensuring that these youth retain access to some type of health insurance coverage after they leave the foster care system helps promote stability for these youth during a critical transition period in their lives. For foster youth who are reuniting with their families, care must be taken to ensure that these youth do not lose health insurance coverage during this critical period. Strategies that have been proposed to assist families in retaining coverage for their children include: [165]

- Providing for 12 months of continuous eligibility.
- Using information from Medicaid files or other benefits programs to renew eligibility; and
- Allowing families a "grace period" of additional time to complete necessary paperwork before terminating the child's Medicaid coverage.

California is one of 23 states that allows for 12 months of continuous Medicaid eligibility for children.[166] This policy reduces gaps in coverage for these youth and allows for continuity of care during what can be a stressful period for youth and their families. It can also help ease the youth's transition home by ensuring that they will not lose coverage immediately upon leaving foster care.

California also already had enacted that youth in foster care who turn 18 while in the custody of the Department of Social Services can currently remain enrolled in Medi-Cal until their 21st birthday. California has been noted for its simple enrollment procedures that eliminate loss of coverage for youth who are aging out of the foster care system; youth are notified by the county that they will be automatically enrolled in Medi-Cal three months prior to their 18th birthday, no forms or additional documentation is required.[167] Changes made by the ACA provide important coverage improvements for these youth by permitting them to remain on Medi-Cal until they reach their 26th birthday. Again, these achievements in California serve as excellent models that can be used to support other populations within the Medicaid program.

Putting systems in place to assist the special populations discussed above in the timely completion of eligibility re-determinations are as important as promoting first-time enrollment. The ACA simplifies some of the re-determination process, but there may continue to be individuals who lose Medicaid

[164] Data retrieved from: *http://cwoutcomes.acf.hhs.gov/data/downloads/pdfs/california.pdf*
[165] Ibid.
[166] Kaiser Family Foundation. State Health Facts: California. Retrieved on December 5, 2011 from: *http://www.statehealthfacts.org/profileind.jsp?ind=233&cat=4&rgn=6&cmprgn=1*
[167] Redmond, P. (2003). *Children Discharged from Foster Care: Strategies to prevent the loss of health coverage at a critical transition*. Washington, D.C.: Kaiser Commission on Medicaid and the Uninsured.

coverage because re-determination paperwork was not completed correctly or on time. This is particularly true for people who are homeless because they lack a permanent address making it difficult to receive and retain administrative documents. Having a designated third party representative may assist with this. Adding a data field to the Medicaid application for housing status will also allow for targeted outreach to facilitate the re-enrollment process for homeless individuals.[168]

Consideration of the needs of these special populations will help California and its counties meet the ACA requirements to establish procedures for conducting outreach to and enrolling vulnerable and underserved populations in the Medi-Cal program. Policies and procedures that effectively target these populations for enrollment will help decrease the number of people who are uninsured and the amount of uncompensated care that is provided in the state. Absent this type of strategic outreach and enrollment approach, existing health care disparities for these populations are likely to continue to widen.

## 2. Benefit design and service array

Ensuring coverage of and access to the types of mental health and substance use services special populations need is also critical to improving individual and system-level outcomes for these groups. Special populations are often not considered in the planning of services to meet their health care needs. Thus, the types of services which may be effective for the general population needing mental health and substance use services are often not adequate to meet the needs of certain subgroups of individuals. Many of the special populations discussed here have more intensive and protracted service needs due to the following factors:

- They are frequently involved with multiple service systems and providers (e.g., child welfare, special education, mental health, juvenile justice, etc.). For example, in 2008, more than 50% of youth in foster care received 15 or more Medi-Cal services, clearly reflecting the complex service needs of this population but also suggesting the need for care coordination and collaboration among systems and providers serving these youth.[169]

- These populations often have multiple chronic physical and mental health conditions. Among chronically homeless individuals, which nationally comprise an estimated 17% of the homeless population, at least 30% have serious mental illnesses, over 60% have substance use disorders,

[168] National Health Care for the Homeless Council. (2010). *Policy Brief: Reducing Medicaid Enrollment Barriers for Individuals Who are Homeless.* Nashville, TN: National Health Care for the Homeless Council.
[169] APS Healthcare. (2009). *CAEQRO Statewide Report: Year 5*. Sacramento: APS Healthcare.

and high rates of co-occurring chronic health conditions are common. Youth in foster care have similarly high rates of multiple chronic conditions. The UCLA Center for Healthier Children, Families, and Communities, found that approximately 60% of youth in foster care have a chronic condition, while 25% have three or more chronic conditions.[170]

- They have higher rates of certain risk factors for mental, emotional, and behavioral problems, including poverty, exposure to traumatic events, domestic violence, child use and neglect, prenatal drug and alcohol exposure, and discrimination.

As a result of these and other issues, coverage of specific evidence-based and best practices found effective for these special populations such as Assertive Community Treatment, Multi-Systemic Therapy, Functional Family Therapy, Supported Employment, Integrated Treatment for Co-Occurring Disorders, Trauma-Focused Cognitive Behavioral Therapy, and peer and family support services are important components of a "good and modern" mental health and addictions treatment system that is inclusive of the treatment needs of special populations. Many of these services have been covered by Medicaid in other states. For example, Massachusetts, Pennsylvania, Oklahoma, Texas, Georgia, Wyoming, Connecticut, and Minnesota all cover peer or family support services which can help promote engagement in mental health and substance use services for many of these special populations. Oklahoma, North Carolina, and Connecticut cover Multi-Systemic Therapy which has proved to be an effective treatment of youth with mental health needs involved with juvenile justice. Numerous states cover Assertive Community Treatment including North Carolina, New Jersey, Indiana, Oklahoma, Rhode Island, Illinois, Massachusetts and Maryland which can be effective in serving persons with serious mental illness experiencing homelessness. As discussed in Chapter VI, the DMH CSI data indicates a small but growing number of people are receiving EBP's in California. Exploring strategies for increasing the number of eligible people who receive EBP's will be an important consideration for the system plan.

A recent court action, *Katie A. v. Bonta*, will help expand the array of services available to youth statewide particularly those involved with child welfare. The settlement agreement that was recently reached in the case commits California to implementing:

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[170] Inkelas, M. & Halfon, N. (2002). *Medicaid and Financing of Health Care for Children in Foster Care: Findings from a National Survey*. Policy Brief from the Study of Health Services for Children in Foster Care. UCLA Center for Healthier Children, Families, and Communities. Retrieved on December 6, 2011 from: *http://www.healthychild.ucla.edu/PUBLICATIONS/ChildrenFosterCare/Documents/Financing%20brief%20final%20for%20distribution.pdf*

- Intensive Care Coordination (ICC), a service that includes completion of a strengths-based assessment, development of an individualized care plan, referral, monitoring and related activities, and assistance with transition and discharge planning; and

- Intensive Home-Based Services (IHBS) which are defined as individualized, strength-based interventions designed to ameliorate mental health conditions that interfere with a child's functioning which can be provided in any setting where the child is naturally located.

The settlement agreement also specifically requires the state to identify the components of Therapeutic Foster Care (with specific reference to Multi-Dimensional Treatment Foster Care) that can be covered by Medi-Cal and provide those services to eligible beneficiaries. The agreement also acknowledged that certain youth will require a formal Child and Family Team (CFT) planning process. This CFT process, sometimes referred to as Wraparound, will be used to serve those youth with particularly complex or intensive needs and will serve as the primary vehicle for delivering services to these youth. The system design and implementation process for services under the *Katie A.* settlement is in process but it holds promise for reducing the gap in services for youth in foster care or at risk of out-of-home placement. It also helps align California with national best practices for treatment of children in foster care with mental health problems.

Several provisions within the ACA also present opportunities for coverage of some of the aforementioned evidenced-based practices as well as other services that can help many of the special populations discussed here to be successful in the community. These new options may also assist California in meeting its obligations under *Olmstead* by facilitating access to home and community-based services that can decrease reliance on institutional or out-of-home care for these special populations many of whom are at particularly high risk of institutionalization. Certain provisions also offer an enhanced federal matching rate to support the implementation of new services.

**Health Homes.** Section 2703 of the ACA affords California the option through a state plan amendment (SPA), to provide for "health homes" for Medi-Cal enrollees with chronic conditions. Given the complex physical and behavioral health needs of these special populations, this option offers a great opportunity for these groups to access comprehensive care that is coordinated across providers and promotes integration of physical and behavioral health. For the health home model to be effective for these youth and other special populations, their unique needs will need to be considered in the design and development of the health home platform. For example, special training for primary care providers on the

special health care needs of these populations, the inclusion of providers of mental health and substance use services and FQHCs as health homes, and development of strategies to engage these populations in health home services are each critical components to the success of this model.

**Home and Community Based Services (HCBS) Option.** The ACA makes several changes to the 1915(i) HCBS state plan option which presents California with the opportunity to provide many of the special populations discussed here with a broader array of home and community-based services, such as supported employment, non-medical transportation, respite care, and community transition services. These services could augment (or replace) existing services available under the Rehab Option for people with serious mental health needs.

**Community First Choice Option (CFCO).** On December 1, 2011 DHCS submitted a Medicaid State Plan Amendment to receive additional federal reimbursement under the Community First Choice Option (CFCO) which was newly created under the ACA. This will allow the state to receive a six percentage point increase in their FMAP. People receiving services under the current Personal Care Services and In-Home Supportive Services Plus Options will be transitioned to the CFCO. Available services include:

- Assistance with accomplishing Activities of Daily Living (ADLs) or Instrumental Activities of Daily Living (IADLs), and or health related tasks through hands-on assistance, supervision, or cueing
- Back-up systems or mechanisms to ensure continuity of services and supports;
- Elective training on how to select, manage, and dismiss attendants
- For people who require assistance with meal preparation, allowance for a portion of the individual's service budget for meal preparation, meal clean-up, and shopping for food, to purchase restaurant meals.

Many of the special populations with serious mental illness or serious emotional disturbance discussed above could benefit from these services in order to help them remain in the community and avoid costly placement in nursing facilities or other residential settings. How these services are coordinated with other supports and services such as those offered under the rehab option and/or through the physical managed care health plans for the SPD population will be important to facilitating access to these services for these populations.

While the ACA provides new opportunities for coverage of new Medicaid services that can help members of special populations receive appropriate treatment for their mental health and substance use disorders, Medicaid funding alone is not adequate for achieving broad-based adoption of evidence-based and promising practices. A creative financing approach that blends and braids dollars from different funding streams together is often required. This is because use of Medicaid dollars for certain purposes such as training, child care, transportation, or room and board, is either restricted or not allowable. This type of financial collaboration however requires leadership and a commitment from both state and county officials in order to ensure its success. Child welfare, juvenile justice, housing, education, vocational rehabilitation, county mental health and substance use systems, early childhood, and corrections systems all have access to funding that in many cases can be used more flexibly, and when combined with Medicaid funding can be used to promote greater adoption of evidence-based practices.

For example, MHSA Prevention and Early Intervention or Community Supports and Services dollars have been used in some counties to support the development and implementation of evidence-based practices that have been proven effective with these populations such as Multi-Systemic Therapy, Functional Family Therapy, Multi-Dimensional Family Therapy, and Trauma-Focused Cognitive Behavioral Therapy, though widespread use and access to these types of best practice services varies considerably from county to county.

### 3. Provider network and qualifications

Successful engagement in services for special populations requires providers who are knowledgeable of and sensitive to the culture, background and life experiences of their members, particularly as it relates to behavioral health, who are linguistically competent, and who are knowledgeable of and skilled in the delivery best practice services modalities that are effective for special populations.

Some special populations will require inclusion of providers with highly specialized skills and expertise. For example, people who have experienced homelessness or incarceration as well as people with substance use disorders often respond best to engagement and treatment by providers who have had those same experiences themselves. This is similarly the case for racial and ethnic minorities and LGBT populations, where providers that reflect the diversity of those being served can positively improve treatment engagement and outcomes. Youth in foster care and juvenile justice often need access to providers and practitioners with skills in working with transition age youth, children with sexual offending or acting-out behaviors, and histories of trauma. Given the increased demand for services among special populations that can be expected in 2014, the need exists to support specialized providers

who currently serve these populations in becoming Medicaid providers, although they are few and their capacity often limited. Once people are enrolled in Medi-Cal, inadequate access to providers can be a significant barrier for special populations in receiving the care they need.

Many of these special populations receive mental health and substance use services from other systems (e.g., housing, DADP, child welfare, juvenile justice, etc.) that have provider networks which possess a great deal of experience working with these special populations. Many of these providers have not traditionally sought to be or been accepted as Medicaid providers; often because they do not have the infrastructure or overhead to meet requirements that larger organizations can meet such as having a Medical Director; or are low-volume "niche" providers who serve certain neighborhoods or communities. Inclusion of these providers in a Medicaid network can offer opportunities to enhance engagement of special populations; as well as provide a range of services to often underserved communities.

However, the transition from grants and state contracts to billing Medicaid for these providers is a substantial shift. Mental health, substance use, child welfare, homeless services, and other providers of services to these special populations will need technical assistance with this transition process to ensure they are incorporated into the provider networks and medical homes serving these Medi-Cal expansion populations. Helping them identify strategies for leveraging Medicaid, including developing partnerships with Federally Qualified Health Centers, is vital to the long-term sustainability of these valuable services. There is also a need for training in services needs, cultural competency and sensitivity, and effective engagement and service practices for non-specialized providers who will increasingly come in contact with special populations. Providers may not always know when they are serving a member of a special population group unless that information is disclosed which makes training in culturally sensitive and competent service delivery for all of these populations even more critical. Investing in initial and ongoing training, coaching, as well as fidelity and outcomes monitoring are equally critical to developing and implementing the evidence-based practices proven so effective for these special populations. Use of enhanced rates, particularly during start-up phases, as well as tapping into resources available through MHSA or grant dollars to pay for training and evaluation of these services can encourage more widespread adoption of these practices.

Service access for special populations is also largely dependent on the availability of service in a community setting versus office-based care. Meeting people where they are in the community is a key tenet of effective outreach and service delivery for people part of these special populations. The same is true for certain racial and ethnic groups for whom stigma related to mental health and substance use

treatment may prevent them coming into an office setting to seek treatment. Transportation can also be major barrier to accessing services for some special populations. Ensuring that rates incentivize provider travel or co-location in easily accessible community locations can create a shift from office-based to community and home-based models that are often more effective in treating special populations.

Attention to provider/practitioner qualification and credentialing issues is also important in thinking about how to ensure that the needs special populations are met. Provider qualifications play an important role in the quality of the overall system by ensuring that providers serving these populations actually posses the requisite skills and competencies to address the special needs of these populations. For example, numerous key informants and reports reviewed for this assessment highlighted that the certification requirements for substance use counselors in the state are too low. The complex physical health, mental health, and addiction issues faced by these populations, indicates a need for individuals with advanced training and education in effective interventions for these populations.[171] However, care must be taken not to rely only on traditional "proxies" for practitioner qualifications such as licensure or level of education, as they may inadvertently eliminate whole categories of providers such as persons with lived experience, who could otherwise be qualified if different proxies or measures were used .

Setting provisional qualifications that include meeting/exceeding specified process and outcome targets for providers, offering technical assistance and training, and crediting lived experience in lieu of formal education are all effective strategies for developing an inclusive provider network. Also, inclusion of representatives of these special populations on credentialing committees and workgroups involved in setting provider qualifications is critical to establishing a well-rounded provider network. Obviously provider qualifications are not the only component driving provider quality but it is an important piece of an overall strategy for ensuring that these vulnerable populations have access to high quality care.

## 4. Monitoring access and quality of care

As discussed earlier in this chapter, many of the special populations discussed in this chapter, have had historically low service penetration rates and use a disproportionate share of high-cost, poor-outcome services. These populations have higher rates of unmet service needs compared to people in the rest of the state. For example:

[171] Little Hoover Commission. (2008). *Addressing addiction: Improving & integrating California's substance use treatment system.* Sacramento: Author.

- One national study found that 21% of homeless individuals reported unmet need for mental health care, and that being uninsured was a predictor of the inability to access needed care.[172]

- A recent DADP report estimated that approximately 3 million Californians ages 12 and older are in need of but not receiving substance use disorder treatment. [173]

- A study of the health care needs of the prisoner reentry population in California found that about two-thirds of California's re-entry population reported having a drug use or dependence problem, yet only 22% percent received treatment while incarcerated, and more than half reported a recent mental health problem, with about half of those receiving treatment.[174]

- Data from the California Health Interview Survey revealed the rate of mental health needs for LGBT [sexual minorities] was more than double the statewide rate (19.7% vs. 8.5% respectively).[175]

Specific attention to monitoring access and quality of care for these special populations plays an important role in addressing the significant health disparities these populations experience. For example, monitoring penetration rates is a specific strategy that can be used to inform how well particular special populations are being served by the system. However, reviews of EQRO reports indicate that not all of the specialty mental health plans utilize these data to improve outreach and engagement of certain special populations such as racial and ethnic minorities. In addition, analyzing and reporting utilization data for special populations of interest such as racial and ethnic groups, youth in foster care, or people with co-occurring disorders, can help identify disparities in service use and can be an important strategy for targeting patient and provider interventions and quality improvement efforts. Ensuring that Medicaid data such as claims and utilization for the populations they serve is made available to providers can play an important role in helping them to better target interventions and engage and outreach underserved populations. Use of health information technology to promote sharing of health information across

[172] Baggett, T.P., O'Connell, J.J., Singer, D.E., Rigotti, N.A. (2010). The Unmet Health Care Needs of Homeless Adults: A National Study: Discussion. *American Journal of Public Health.* 2010;100(7).
[173] California Department of Alcohol and Drug Programs Office of Applied Research and Analysis. *Alcohol and Other Drug Prevalence, Consequence, and Treatment Data by Race/Ethnicity.* Sacramento, CA: California Department of Alcohol and Drug Programs.
[174] Davis, L.M., et al. (2009). *Understanding the Public Health Implications of Prisoner Reentry in California : Phase I Report.* Santa Monica, CA: The RAND Corporation.
[175] [175] Grant, D., Padilla-Frausto, M., Streja, L., Aguilar-Gaxiola, S., Caldwell, J. (2011). *Adult Mental Health in California: Findings from the 2007 California Health Interview Survey.* Los Angeles: UCLA Center for Health Policy Research.

providers such as inpatient admissions, pharmacy data, and emergency department use is important for providers to have access to in order to serve these populations.

Provider contracting and reimbursement strategies can also be used to address quality of care and disparity issues for these populations. For example, counties could consider development of performance improvement projects that include financial incentives for providers to more effectively engage and treat special populations and reduce disparities in care received by these populations. Interventions that use members of these special populations such as transition age youth, persons with lived experience, or former foster youth, to provide education and conduct outreach and engagement activities can be particularly effective in reducing disparities for these populations.

Of course these strategies are dependent on having data collection mechanisms that can track provider performance as well as identifying the special populations in question. This often requires adding particular data fields to current data collection systems or adding modifiers on claim codes in order to properly monitor system/provider performance. Given that many of these special populations are served by multiple agencies (e.g., housing, child welfare, juvenile justice, corrections) data sharing and collaboration agreements among the various agencies served by these populations are also important to having a complete picture of how well the system is performing. Additionally, efforts to collect information about these special populations, that is standardized across these entities, such as common race, ethnicity and language categories can also help provide useful information for reporting on outcomes of service use.

## F. CONCLUSION

Many of the special populations discussed in this chapter, such as persons experiencing homelessness, persons with substance use disorders, and persons exiting the corrections systems will comprise a main portion of the expansion population. Without specific attention to these needs of these populations in the design of outreach and enrollment strategies, services, provider qualifications and networks, as well as quality monitoring and improvement activities, these populations could continue to experience barriers to service access, poor treatment outcomes, and high utilization of costly services such as emergency departments and inpatient care. The ACA presents many opportunities (and requirements) that can improve both access to and quality of the mental health and substance use services these populations receive. These opportunities include new Medicaid state plan options such as health homes, funding for workforce initiatives, requirements for mental health and substance use parity in the benchmark plan, outreach and enrollment requirements, not to mention the expansion of the Medicaid

program itself. The next phase of this project, which is the development of a behavioral health system plan, will specifically address strategies focused on meeting the mental health and substance use service needs of these special populations.

# IX. PROVIDER CAPACITY AND WORKFORCE ANALYSIS

## A. MOTIVATION FOR THIS PORTION OF THE NEEDS ASSESSMENT

### 1. Relation to 1115 Terms and Conditions

Access to mental health and substance use services is inextricably linked to provider capacity and workforce issues. As California prepares for an estimated 1.5 to 2 million people to enroll in the Medi-Cal program as a result of national health reform, the question of the readiness of the provider community to meet the demand for services looms large; particularly in light of the fact that significant concerns exist about the capacity of the current mental health and substance use system to meet existing demand for services. Results of the recently published findings from the California Health Interview Survey (CHIS) found that close to 77% of the estimated 2.2 million adults with mental health needs had unmet treatment needs[176] Hiring freezes coupled with increased demand for mental health and substance use services due in part to the sluggish economy have compounded this problem. Results of regional focus groups conducted by California State University Sacramento found that behavioral health workers were the category of healthcare worker most needed both immediately and within the next two years in order to meet the demands of the Patient Protection and Affordable Care Act.[177] Therefore one of the required components of the 1115 Bridge to Reform Special Terms and Conditions is an assessment of the capacity of the mental health and substance use providers to meet the needs of Medi-Cal beneficiaries with mental health and substance use treatment issues.

### 2. Specific questions to be addressed in this chapter

This chapter will highlight some of the critical workforce issues facing California, detail provider and workforce capacity information and key trends, and discuss results of the various key informant interviews. Several key questions drove both the quantitative and qualitative aspects of this provider capacity and workforce analysis. These questions included:

1. Who are the enrolled providers of Drug Medi-Cal (DMC), Medi-Cal Specialty Mental Health (SMH), and other Medi-Cal reimbursable mental health and substance services; and what is their geographic distribution?

[176] Grant, D., Padilla-Frausto, D., Mydin, M., Streja, L., Aguilar-Gaxiola, S. & Caldwell, J. *Adults Mental Health in California: Findings from the 2007 California Health Interview Survey*. Los Angeles: UCLA Center for Health Policy research, 2011.
[177] California State University Sacramento. *Healthcare Workforce Development Regional Focus Groups and Follow-Up Survey*. (2011, June). Sacramento: Author.

2. Given that Medi-Cal enrolled providers may also deliver services to persons covered by other insurers, an important question is: what is the functional capacity of the current Medi-Cal behavioral health provider system for Medi-Cal beneficiaries? What is the number of unique Medi-Cal participants served by Medi-Cal enrolled providers?

3. What is the inpatient capacity designated for acute psychiatric inpatient and/or substance use detoxification and treatment and what is the geographic distribution?

4. What are the types of providers and mental health and substance use workers that are in demand?

5. To what extent are persons with lived experience being utilized in the provision of mental health and substance use services?

6. What are the characteristics of the mental health and substance use workforce including racial/ethnic composition, and linguistic capacity?

7. What are the skills and competencies considered necessary to meet the needs of Medi-Cal beneficiaries?

This chapter reports on both the availability of licensed practitioners such as psychiatrists, social workers, and marriage and family therapists, and other unlicensed or credentialed individuals who deliver mental health and substance use services such as peer specialists, or rehabilitation counselors; as well as provider agencies which are organized entities that may deliver one or more mental health or substance use services such as hospital inpatient or methadone maintenance. Both are important to understand as far as the capacity of the system to serve Medi-Cal beneficiaries. For example, the availability of certain types of practitioners can impact a provider agency's capacity to deliver particular mental health or substance use services. Throughout this chapter, when discussing the available "workforce" or "practitioners" we are referring to the individuals who deliver mental health and substance use services. Some of these individuals are employed by provider agencies while others (e.g. licensed psychologists or psychiatrists) may operate as a solo practitioner or as part of a small group practice. When using the term "provider" we are referring to agencies.

## 3. Relationship to other sections of the Assessment and Plan

Workforce and capacity issues have clear connections to other aspects of this report. Determining if there is adequate supply of mental health and substance use providers and practitioners obviously only makes sense in the context of the demand for such services. Earlier chapters of this report focusing on the prevalence of mental health and substance use disorders among the California population as well as enrollment estimates for the Medi-Cal expansion population provide that needed context. As discussed in the earlier chapter on the expansion population, it was estimated that between 279,000 and 373,200 individuals may need (but not necessarily ask for) mental health services and 113,250 to 151,000 of the overall expansion population are expected to need substance use services.[178] Certainly, understanding the current capacity issues facing the mental health and substance use provider community and it available workforce is necessary to assist in planning for how to meet this additional demand for services. The chapters describing the current users of Medi-Cal mental health and substance use services are also relevant to this chapter as they aid in understanding who is likely to present for treatment this, will help better define the types of providers, skills, and competencies that will be needed going forward.

Analysis of existing utilization patterns and penetration rates also helps us understand populations not well served by the current system. For example, the dearth of Hispanic/Latino mental health and substance use professionals may contribute to lower penetration service rates for this population. Analysis of utilization patterns can also reveal information about provider capacity. For example, high emergency department or inpatient utilization may be reflective of inadequate outpatient provider capacity and/or a need for more responsive provider practices such as offering same-day or urgent appointments. Making the connection between service use by current participants and the availability of particular types of practitioners or providers will assist California as it moves forward and plans for the future.

The capacity of mental health and substance use providers to meet the demand for services in the face of the ACA eligibility expansion obviously goes beyond whether or not the supply of mental health and substance use providers and the available workforce is adequate to meet the demand. Other factors such as providers' ability to utilize health information technology to more effectively and efficiently serve people, and the extent to which providers are coordinating care across mental health, substance use, and

physical health to treat the "whole person" are also critically important in developing a complete picture of the provider community's capacity to serve Medi-Cal beneficiaries. Assessment and analysis of these related issues will occur in subsequent chapters.

## B. METHODOLOGY

The methodological approach for this provider capacity and workforce analysis included both qualitative and quantitative strategies. The following activities were conducted as part of this provider and workforce analysis:

- Published reports related to national and California specific workforce issues and trends were reviewed.
- State and County-level reports about provider and workforce capacity were reviewed and analyzed for key themes including selected Workforce Education and Training (WET) plans and needs assessments in addition to county specialty mental health plan External Quality Review Organization reports.
- Interviews were conducted with key informants about issues facing the mental health and substance use workforce and the perceived needs and gaps in the provider workforce and analyzed for key themes.
- Data about human resource capacity and labor statistics both nationwide and in California were researched and analyzed.
- Data from licensing and certification boards for various behavioral health practitioners were obtained and analyzed.
- Medi-Cal claims and provider identification data were analyzed.

It should also be noted that determining providing capacity is incredibly challenging. Much of the data that is available to assess capacity are proxy measures such as number of licensed psychiatric beds or number of licensed practitioners that do not reveal much about the true capacity of the system to serve Medi-Cal beneficiaries. For example, budget and workforce constraints often limit the number of people who can be hired to staff facilities, therefore leaving some licensed bed capacity unavailable for use.

Data from licensing or certification boards are limited in that certain portions of those licensees or certificants are not working in the public mental health system but in other fields such as research, education, child welfare, corrections, or are in private practice. Even knowing the numbers of Medi-Cal providers does not mean that the full capacity of that provider is dedicated to Medi-Cal recipients. Not all Medicaid enrolled providers deliver substantial amounts of service to Medicaid recipients. Nor do all qualified providers deliver all services that are covered by Medicaid. These numbers therefore overinflate the actual number of practitioners available to serve Medi-Cal beneficiaries. These limitations must be taken into consideration when reviewing these data.

We also recognize that this report presents an incomplete picture of the overall mental health and substance use systems' capacity to serve people in need of these services. Medi-Cal beneficiaries receive mental health and substance use services from a variety of other sources that will not be represented in the Medi-Cal claims data or in counts of qualified Medi-Cal providers. Education, child welfare, non-Medicaid funded alcohol and drug programs and mental health programs, housing, juvenile justice, aging, corrections and public health are also important providers of mental health and substance use treatment and prevention services. While it is beyond the scope of this report to assess other systems capacity and utilization; it is important to know that all of these systems play a critical role in addressing some of the gaps in the capacity of the Medi-Cal mental health and substance use systems. Implications of the interconnections of all of these systems will be discussed in subsequent chapters.

## C. LITERATURE REVIEW

It has been widely recognized that that there are serious challenges facing mental health and substance use systems, both nationally and in California, with regard to the available workforce.[179] Behavioral health systems all over the country are lamenting the lack of qualified and trained practitioners not only for today, but also for the future.[180] The Institute of Medicine in its report: ***Improving the Quality of Health Care for Mental and Substance-Use Conditions*** summarized the issue as follows:

> *The health care workforce treating mental and/or substance-use (M/SU) conditions is not equipped uniformly and sufficiently in terms of knowledge and skills, cultural diversity and understanding, geographic distribution, and numbers to provide the access to and quality of M/SU services needed by consumers. This has long been the case and has been*

[179] The Annapolis Coalition on the Behavioral Health Workforce (2007). An action plan for behavioral health workforce development: A framework for discussion. Cincinnati, OH: Author.
[180] National Council of Community Behavioral Healthcare Annual Survey, 2001: National Association of State Mental Health Program Directors as reported in Mental Health Weekly, 12(15), 1,4, and 6.

*persistently resistant to change despite recurring acknowledgments for major improvements to address them (p. 286).*[181]

Health reform has brought renewed attention and focus to the issue of provider capacity and workforce issues. The ACA contains numerous provisions intended to develop the healthcare workforce. In fact, California recently received a $150,000 HRSA planning grant to help support the state's efforts to develop the health care workforce and prepare for the anticipated increased demand resulting from health care reform; though it appears that much of the focus is on development of the primary care and physical health care workforce.

Behavioral health, as all human services, is a human resource dependent industry. Human resource costs often represent 80 percent or more of a behavioral health provider's or program's budget. The ability to recruit and retain adequate staff numbers of the right kind of professionals and the ability to assure those staff not only have but are able to continue learning the necessary information and skills to provide high quality care, is core to the success of the behavioral healthcare field and to the individuals and families it serves. Much is known about the difficulties facing the public behavioral health workforce, including: low salaries, poor working conditions, the aging workforce, high caseloads, lack of adequate training and graduate preparation programs, limited opportunities for advancement, lack of ethnic and linguistic diversity, and regulatory and scope of practice issues that limit who can provide reimbursable services. However, making headway resolving these issues has been slow[182, 183]

The state of California has long recognized the need to focus on workforce development. There are several statewide entities and groups focused on workforce development such as the Office of Statewide Health Planning and Development (OSHPD), the California Workforce Investment Board, and the Healthcare Workforce Development Council. These groups heavily focus on the primary care and physical health care workforce development and planning. Increasing the role and visibility of mental health and substance use workforce and provider capacity issues among these groups should be an

[181] Institute of Medicine (2006). Improving the Quality of Health Care for Mental and Substance-Use Conditions. Washington, DC: National Academies Press.
[182] Lok, V. Christian, S. & Chapman, S. (2009). *Restructuring California's Mental Health Workforce: Interviews with key stakeholders.* San Francisco: Center for the Health Professions at the University of California, San Francisco.
[183] Pacific Southwest Addiction Technology Transfer Center (2008). *CADPAAC's 2007 Alcohol and Other Drug Use Treatment Workforce Survey*. Retrieved on 10/18/11 from: *http://www.co.fresno.ca.us/uploadedFiles/Departments/Behavioral_Health/PDF/Workforce%20Survey%20-%20ATTC%20Analysis%20%20Summary%20Report.pdf*

important priority given the expected increase in demand for mental health and substance use services resulting from health care reform.

The Mental Health Services Act (MHSA) has a specific focus on workforce development and in a time of budget cut-backs and limited resources, it has served as a critical source of funding in this area. The MHSA has served as an impetus for multiple efforts at the state and county levels to: address the need for more mental health professionals in all areas, increase employment of mental health practitioners from diverse racial and ethnic backgrounds, and to increase the number of consumers and family members serving in the public mental health systems. MHSA workforce development activities have resulted in a number of activities at both the state and county levels intended specifically to remediate California's workforce problems including:

- A requirement for county-level workforce needs assessments to better understand where occupational shortfalls exist and to plan for addressing these shortfalls.
- Creation of the Mental Health Loan Assumption Program that provides qualified applicants with up to $10,000 in educational loan repayments in exchange for service in the County public mental health system.
- Formation of partnerships with community colleges and other institutions of higher learning to enhance the ability of the educational pipeline to develop mental health and substance use professionals at all levels.
- Creation of a stipend program for graduate students who work in the public mental health system.
- Support of five regional partnerships designed to promote and develop local workforce capacity.
- Establishment of a statewide technical assistance center focusing specifically on the promotion of persons with lived experience in the public mental health workforce.

The Department of Mental Health was also charged with developing a five-year workforce education and training plan as part of the MHSA.[184] The plan is required to include the following components:

- Expansion plans for the capacity of postsecondary education to meet the needs of identified mental health occupational shortages.
- Expansion plans for the forgiveness and scholarship programs offered in return for a commitment to employment in California's public mental health system and make loan forgiveness programs

[184] The most up to date version of the DMH five-year Workforce Education and Training Development plan can be found at: *http://www.dmh.ca.gov/Prop_63/MHSA/docs/MHSA_FiveYearPlan_4-22-08.pdf*

available to current employees of the mental health system who want to obtain Associate of Arts, Bachelor of Arts, masters degrees, or doctoral degrees.

- Creation of a stipend program modeled after the federal Title IV-E program for persons enrolled in academic institutions who want to be employed in the mental health system.
- Establishment of regional partnerships among the mental health system and the educational system to expand outreach to multicultural communities, increase the diversity of the mental health workforce, to reduce the stigma associated with mental illness, and to promote the use of web-based technologies, and distance learning techniques.
- Strategies to recruit high school students for mental health occupations, increasing the prevalence of mental health occupations in high school career development programs such as health science academies, adult schools, and regional occupation centers and programs, and increasing the number of human service academies.
- Curriculum to train and retrain staff to provide services in accordance with the purpose and intent of the MHSA, as well as in innovative programs and services including prevention and early intervention services, and in children's mental health services.
- Promotion of the employment of mental health consumers and family members in the mental health system.
- Promotion of the meaningful inclusion of mental health consumers and family members and incorporating their viewpoint and experiences in the training and education programs described above.
- Promotion of the inclusion of cultural competency in the training and education programs described above. Increase the quality and success of educating and training the public mental health workforce in the expressed values and practices envisioned by the MHSA.

These are laudable goals and attaining them is critical to developing a workforce that is prepared to serve the evolving population of Medi-Cal beneficiaries. However, it must be noted that MHSA money specifically dedicated to workforce development activities was a one-time allocation, and was specific to mental health providers (vs. including both mental health and substance use providers). Monitoring of progress in workforce development will be an important function of the re-configured Department of Mental Health.

While the above efforts focus specifically on increasing the available workforce and improving training, other strategies that have been tried both nationally and in California involve making better use of existing resources. For example, the limited supply of psychiatrists has led to innovations and expansions

of tele-psychiatry models in rural areas. Consultation models where psychiatrists consult to PCPs about use of psychiatric medications for "routine" cases so as to free up psychiatrists for patients who require more complex medication regimes have also been used successfully in states across the country. Quality improvement efforts such as NIATx focus on helping mental health and substance use organizations to better engage and retain people in treatment so as to improve access to care and reduce no-shows thereby making better more efficient use of limited human and financial resources. The multiple efforts focused on integration of health, mental health, and substance use also promote more efficient and effective use of the limited health care workforce. So to do efforts focused on utilizing persons with lived experience in the provision of mental health and substance use services. This underutilized workforce can improve engagement in mental health and substance use treatment services as well as augment existing mental health and substance use services. They also play a valuable role in developing the base of natural supports such as drop-in centers which can offer needed social, employment, education, and other support while also decreasing reliance on paid services.

The remainder of this Chapter describes information about the available providers and practitioners of mental health and substance use in California and their capacity to serve the Medi-Cal population. The Chapter ends with a review of implications for future planning efforts in California.

## D. RESULTS OF THE QUANTITATIVE ANALYSIS

### 1. Medi-Cal provider analyses

As part of the provider capacity analysis, TAC/HSRI analyzed Medi-Cal claims data to determine both the number of providers within various mental health and substance use service categories as well as the service volume of those providers. Only detailing the number of providers offers little useful information about the capacity of the system because the number of providers is not the same concept as the capacity of those providers. Depending on how big they are, how many individuals or families they can serve in any given program or service at any one time, and what variety of services they offer, capacity could be the same or quite different from the number of providers. For example, one large multi-service provider could be more valuable to a county's consumers than a large number of single service providers who have limited capacity and infrastructure.

Table 80 below provides an overview of the number of providers in various service categories across the state.[185,186] These data and the bar charts seen in Appendix D suggest that for many of the service

[185] Time constraints and data limitations made a county by county analysis challenging.

categories the provider system is comprised of a large number of providers serving a small number of individuals.[187] This configuration of providers, particularly for services such as case management, can make care coordination more challenging. Of course, this provider configuration could suggest a provider community comprised of small providers possessing particular skills in working with special populations such as transition age youth or individuals from particular racial / ethnic group; however this could not be determined from the available data. It should be noted here too that concerns exist about the reliability of these data. As seen in the bar charts in Appendix D, there are high numbers of providers serving very few people for services such as day treatment. This seems incongruent with how day treatment is typically provided and therefore these data must be interpreted with caution.

### Table 80. Number of providers, individuals served, and units of service by service type - statewide

| Service Type | # of providers | # of individuals served | Median n of individuals served | Avg # of individuals served | Total $ | Median $ per person | Avg $ per person |
|---|---|---|---|---|---|---|---|
| **SUD Day Treatment** | 511 | 8,350 | 3 | 18 | $42,451,690 | $3,295 | $5,723 |
| **Mother-Child Habilitative & Rehabilitative Services** | 88 | 1,210 | 12 | 14 | $3,734,606 | $2,061 | $2,775 |
| **MH Case Management** | 2,131 | 212,470 | 48 | 116 | $189,971,804 | $338 | $707 |
| **MH Day Treatment** | 271 | 3,145 | 3 | 12 | $49,522,375 | $15,271 | $16,534 |
| **MH Day Treatment Rehab** | 141 | 3,851 | 9 | 28 | $29,091,342 | $8,535 | $9,706 |
| **MH Inpatient** | 182 | 47,198 | 133 | 352 | $1,017,600,558 | $6,715 | $15,604 |
| **Medication Support** | 1,514 | 219,964 | 55 | 155 | $272,303,606 | $970 | $1,356 |
| **MH Crisis Intervention** | 1,190 | 46,791 | 10 | 47 | $43,315,379 | $527 | $633 |
| **MH Crisis Stabilization** | 45 | 21,309 | 274 | 506 | $35,285,480 | $1,657 | $4,560 |
| **MH Outpatient** | 2,580 | 326,232 | 52 | 162 | $1,189,718,603 | $2,529 | $4,167 |
| **Methadone Maintenance** | 121 | 20,051 | 152 | 185 | $88,744,430 | $3,927 | $3,869 |
| **Drug-Free Treatment** | 390 | 28,025 | 50 | 78 | $37,624,129 | $730 | $1,025 |

[186] It should also be noted that a provider may offer more than one service so totaling the number of providers in each category will overinflate the number of unique mental health and substance use providers in the state.
[187] It should be noted that some of the categories such as mental health outpatient may be comprised of both providers (e.g. mental health centers) and practitioners (an LCSW in a solo practice).

It is also not clear from the data if these providers have unutilized capacity that could be ramped up quickly to serve more individuals or if they are small providers operating at full capacity. While the information in Table 5 and the bar charts in Appendix D provide some information about capacity based on recent service utilization, it is not the same thing as a provider's or a total system's capacity to serve a specific number of individuals or provide a specific number of units of service in a given time period. Without more information about the number of FTE or people they can serve at a given time, a fuller understanding of the functional capacity of the system is not possible. It is also important to note here that while the analyses conducted for this report reveal information about the numbers of people currently being served; current utilization does not predict future capacity.

One additional area of note for these data is the relatively high costs for services with little support for their efficacy such as Mental Health Day Treatment and adult residential services. These providers serve relatively few people, but do so at a high per person cost. Whether these resources could be better used to serve people through more effective recovery oriented models such as supported employment or supported education will be an important consideration for the upcoming planning process.

## 2. Licensed inpatient and detoxification bed capacity information

Two necessary components of a fully functioning mental health and substance use system are the capacity to provide acute psychiatric inpatient services to people at risk of harm to themselves or others and medical detoxification services to people who need to be medically monitored and treated for symptoms of acute substance use withdrawal[188] Across the country there have been numerous reports implicating the lack of inpatient psychiatric and detoxification beds as a contributing factor to emergency department overcrowding. There have been similar reports in California. The California Hospital Association (CHA) has received reports of people with acute psychiatric needs waiting for days in hospitals emergency departments or on medical inpatient floors for a bed on an inpatient psychiatric unit.[189] Lack of adequate inpatient and detoxification capacity has also been cited as contributing to an increased use of jails as a de-facto treatment system for people with acute psychiatric and substance use problems.

[188] The Medi-Cal program only covers ASAM level 4, medically managed inpatient services and not level 3.7 which is high-intensity residential treatment designed also to also treat medical or psychological problems.
[189] Kruckenberg, S. (personal communication, November 16, 2011).

The Table 81 shows data from the California Hospital Association's (CHA) analysis of licensed inpatient acute psychiatric bed capacity from the Office of Statewide Health Planning and Development (OSHPD)[190]

### Table 81. Licensed inpatient acute psychiatric bed capacity

| General hospitals w/ psych | N of psych beds | APHs & PHFs[191] | N of psych beds | Total hospitals | Total beds | Beds per 100,000[192] |
|---|---|---|---|---|---|---|
| 91 | 3917 | 50 | 2673 | 141 | 6593 | 17.70 |

Further analysis of these data by the CHA reveal that 25 counties do not have adult inpatient beds and 45 counties do not have child/adolescent beds; indicating a mal-distribution of acute inpatient bed capacity across the state[193] Estimates of the appropriate number of *adult* psychiatric beds in a mature well-managed mental health system should be in the range of 18 to 22 beds per 100,000 adults. California has approximately 17.7 beds per 100,000 people (including youth) which suggests an inadequate supply of inpatient psychiatric beds in the state. California also has an additional 6,678 state hospital beds in its five state hospitals, though these beds are largely dedicated to forensic services. It should also be noted here that not all of the bed capacity above is devoted to persons with Medi-Cal but available to people with other forms of insurance as well as uninsured people. In fact, because of the IMD exclusion which does not permit Federal reimbursement of care provided to Medicaid beneficiaries between ages 18-64 in psychiatric facilities with more than 16 beds, the number of available beds for adults with Medi-Cal is even fewer. Twenty-seven psychiatric facilities located in 12 of the 58 counties are considered IMDs and therefore cannot bill Medi-Cal for inpatient psychiatric services provided to its beneficiaries.[194] DHCS acknowledged this apparent dearth of beds available to persons in need of acute psychiatric care in its application to CMS to participate in the Medicaid Emergency Psychiatric Demonstration by writing, "Statewide, very few beds for which FFP can be claimed (i.e., non-IMDs) are available, and county resources are extremely limited for payment for placement in facilities that are IMDs." [195]

[190] California Hospital Association (2010). Retrieved from: *http://www.calhospital.org/PsychBedData*
[191] Acute Psychiatric Hospitals (APH) and Psychiatric Health Facilities (PHF). APHs are free-standing psychiatric hospitals.PHFs are typically county-operated facilities with 16 beds or less.
[192] Based on 2010 US Census data for California.
[193] These data do not include Department of Mental Health operated state hospitals that are predominately devoted to forensic capacity.
[194] These facilities are located in: San Diego, Los Angeles, San Bernardino, Alameda, Sacramento, Contra Costa, San Francisco, Orange, Ventura, Riverside, Solano, and San Joaquin.
[195] Department of Health Care Services. (2011). Medicaid Emergency Psychiatric Demonstration Application Proposal. Retrieved on December 16, 2011 from:

OSHPD data as reported by the CHA also show an inadequate distribution of inpatient beds dedicated to persons in need of detoxification services; with only 10 of the 58 counties having capacity for a statewide total of 812 beds. The need for more inpatient detoxification was noted by several key informants who described that people in need of this service often cannot access it but rather have to accept what is available (e.g., outpatient care) rather than what they need to properly treat their addiction. Additionally, the Medi-Cal program does not cover medically monitored detoxification services (ASAM level 3.7), only medically managed intensive inpatient services (ASAM level 4), further limiting the range of treatment choices for people in need of detoxification services.

The map below shows the geographic distribution of beds across the state. As this map reflects, persons living in rural or frontier areas of the state who are in need of acute psychiatric or medical detoxification services must travel far from their homes and natural support systems in order to receive this type of care.

It is important to note that the amount of inpatient capacity needed is related in large part to the robustness of the continuum of outpatient supports and services including crisis response and intervention services. While some inpatient and detoxification capacity is always going to be needed and must be available to those who require it, availability of community-based services can lead to a decreased reliance on inpatient services. As discussed in Chapter IV, expenditures for inpatient services decreased between 2007 and 2009 while outpatient expenditures increased during this time period. This change cannot be attributed to a decrease in the number of available psychiatric beds as the number of beds remained relatively stable during this time period.[196] As indicated in Chapter IV, emergency department expenditures also remained relatively stable during this time period. While this suggests a positive trend toward decreased inpatient utilization and increased outpatient utilization, more recently severe budget cuts have reportedly diminished the capacity of the outpatient mental health and substance use system to prevent and treat people in need of these services and avert crises. This could have an impact in later year's data (2010 and 2011) potentially resulting in an increase in inpatient and/or emergency department utilization. This will be an area to continue to monitor as the full impact of budget cuts is realized in the coming years.

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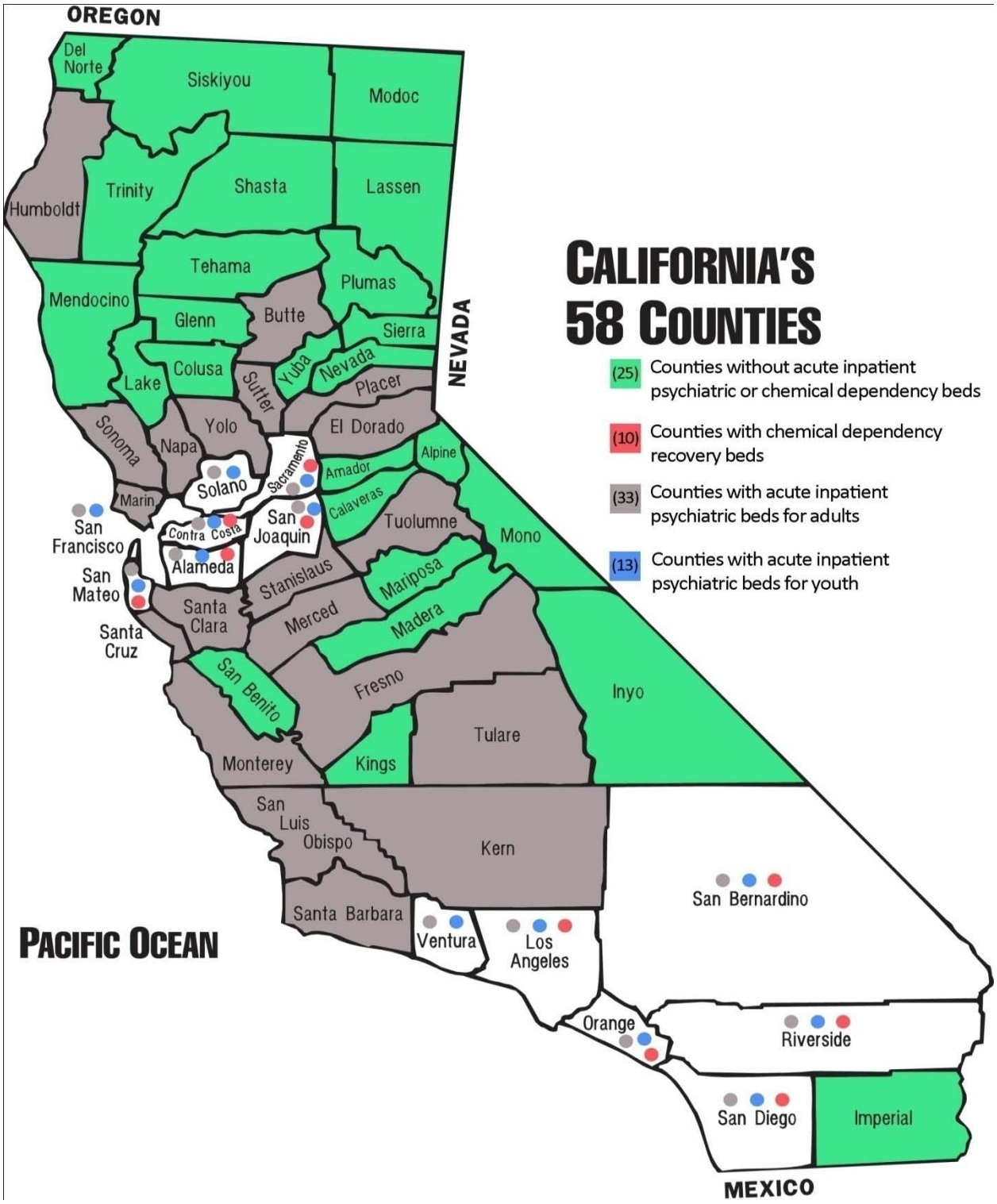
*http://www.cmhda.org/go/Portals/0/CMHDA%20Files/Breaking%20News/1110_Oct/DHCS_Letter_Re_CMS_IMD_Demo_Submission_(10-12-11).pdf*

[196] California Hospital Association (2010). Retrieved from: *http://www.calhospital.org/PsychBedData*

**Figure 6. Statewide distribution of psychiatric inpatient and chemical dependency recovery beds**



## 3. Federally Qualified Health Centers and Rural Health Clinics

Federally Qualified Health Centers (FQHC) and Rural Health Clinics (RHC) play an important role in the provision of mental health and substance use services in California, particularly for people living in rural areas and for underserved populations such as people experiencing homelessness. As of 2010, there were 118 FQHCs in California with over 1,039 service delivery sites located throughout the state.[197] Approximately 12,423,642 visits[198] occurred for some 2,937,212 patients in 2010 at these FQHCs. In addition, there are 274 Rural Health Clinics located throughout the state.[199]

As will be discussed in more detail in the later chapter on health integration, these clinics have been instrumental in efforts to integrate primary care with mental health and substance use care across the state. Efforts to increase collaboration and form stronger partnerships between the county mental health and substance use departments and FQHC/RHC providers were noted by several key informants as critical to increasing access to primary care services for clients in the specialty mental health plans. FQHCs/RHCs also play a particularly important part in providing services to people with mild to moderate mental health or substance use needs who do not qualify for specialty mental health plan services. In addition, transitioning people with serious mental illness who are stable on their medications and functioning well in the community from specialty mental health services to services offered through FQHCs, was identified by some stakeholders as a strategy for ensuring that people who do require the more intensive services available through the mental health plans can access those services. Enhancing the capacity of FQHC providers to serve these individuals was mentioned as a need by several key informants. While some counties have strong partnerships and formal relationships with the FQHCs in their areas, others do not.

## 4. Licensed practitioners data

It was not possible to use provider identification numbers (PIN) or claims data to obtain a valid number of the number of licensed practitioners serving Medi-Cal beneficiaries. This is because many licensed practitioners such as social workers or marriage and family therapists work for a provider agency and do not have a separate provider identification number. Therefore, when possible, data from California licensing boards was used when reporting the number of practitioners in the state, the rationale being that these sources offered the most accurate number of people available to provide mental health services,

[197] Kaiser Family Foundation. (2011). State health facts. Retrieved on December 20, 2011 from: *http://statehealthfacts.org/*
[198] This figure includes all types of care such as primary care, mental health, and other services.
[199] Ibid.

however as noted earlier many of these practitioners are not working in the public mental health system. When statistics from these sources was not available California specific estimates were obtained from the Bureau of Labor Statistics.

### *a) Licensed psychiatrists*

Reports from multiple sources over the years have highlighted the acute shortage of licensed psychiatrists both nationally and in California. According to the Bureau of Labor Statistics, there were approximately 4,260 psychiatrists in California as of 2010. Table 82 shows how California compares to other states across the country relative to availability of psychiatrists per 100,000 persons in the population as well as per square mile. While comparatively California is in a better position relative to other states, it does not mean there is an adequate supply of psychiatrists to meet demand, particularly child or geriatric psychiatrists. Results of other analyses of the supply of psychiatrists in California indicate a geographic mal-distribution of psychiatrists with many rural counties such as Alpine, Glenn, Lassen, Modoc, Sierra, and Yuba having no psychiatrists at all; while other counties such as San Francisco, Marin, Napa, and San Luis Obispo have a high density of psychiatrists.[200]

**Table 82. Comparison of California's supply of psychiatrists per 100,000 persons and square mile to other states from the Bureau of Labor Statistics (BLS).**

| | California | New York | Texas | Illinois | Oregon |
|---|---|---|---|---|---|
| **N of psychiatrists**[201] | 4,260 | 3,440 | 1,550 | 770 | 180 |
| **Per 100,000**[202] | 11.43 | 17.75 | 6.16 | 6.0 | 4.70 |
| **Per sq. mile** | .03 | .07 | .006 | .01 | .002 |

These numbers also do not reflect that many psychiatrists are not working in the public mental health or substance use systems, thus further constraining the supply of psychiatrists available to serve Medi-Cal beneficiaries. These data also do not show the language capacity or racial/ethnic composition of the workforce. While the Medical Board routinely gathers self-reported data about language and race/ethnicity from its licensees, data by specialty practice area were not available. However, a report by the Center for the Health Professions at UC San Francisco identified that the overwhelming majority of

[200] Shea. J. (2009). Licensed mental health professionals in California. Napa: Allen, Shea & Associates on behalf of the California Department of Mental Health.
[201] United States Bureau of Labor Statistics (2010, May). State occupational employment statistics survey.
[202] Based on 2010 US Census Bureau data.

psychiatrists in California are White with the next largest group being Asian/Pacific Islanders.[203] A review of county Workforce, Education, and Training (WET) needs assessments confirms that the availability of psychiatrists who speak Spanish or other county-specific threshold languages are indeed in short supply. Additionally, WET needs assessment information as well as reports by several key informants also indicated that the number psychiatrists specializing in child and adolescent psychiatry and geriatric psychiatry are very rare, particularly in rural counties.

### *b) Psychiatric nurses*

The California Board of Registered Nursing is responsible for licensing nurses in the state. As of August 2011 there were 357 nurses listed by the Board of Nursing as psychiatric- mental health nurses. Psychiatric – mental health nurses are registered nurses who possess a master's degree in psychiatric mental health nursing. These nurses do not have prescription privileges in California unless they are also nurse practitioners who possess a "furnishing number." The number of psychiatric-mental health nurses who are also "furnishing" nurse practitioners was not available. The Board reports that there were 11,817 furnishing nurse practitioners in the state. Additionally there were 3,160 clinical nurse specialists (CNS) in California, however not all of these nurses specialize in psychiatric nursing. CNS also may not prescribe medication unless they are also "furnishing" nurse practitioners.

### *c) Board of Behavioral Sciences licensees*

The California Board of Behavioral Sciences (BBS) is the entity in the state charged with licensing clinical social workers (LCSW), marriage and family therapists (MFT), educational psychologists (LEP), and as of January 2010, professional clinical counselors (LPCC).[204] The BBS also registers MFT interns, professional clinical counselor interns (PCCI), and Associate Clinical Social Workers (ASW).[205]

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[203] Lok, V. & Chapman, S. (2009). *The mental health workforce in California: Trends in employment, education, and diversity.* San Francisco: Center for the Health Professions.

[204] Data from the BBS on the number of LPCC or PCCIs in the state was not available given the fact that this is a new licensure category in California. California was the last state in the nation to license these master's level behavioral health professionals. While these individuals may have been working in the mental health or substance use fields they could not independently practice in California.

[205] ASWs posses a master's degree in social work but have not completed hours toward licensure and/or passed the social work licensing exam.

### Table 83. BBS licensees per 100,000 and per square mile

| | Number | Per 100,000 | Per Sq. Mile |
|---|---|---|---|
| **Licensed Clinical Social Workers (LCSW)** | 18,633 | 50.0 | .12 |
| **Associate Clinical Social Worker (ACSW)** | 9,029 | 24.23 | .06 |
| **Marriage and Family Therapists (MFT)** | 31,445 | 84.41 | .20 |
| **MFT Interns (IMF)** | 13,563 | 36.4 | .09 |
| **Licensed Educational Psychologists (LEP)** | 1,795 | 4.82 | .01 |

While the numbers in Table 83 suggest there are a relatively high number of LCSWs and MFTs per 100,000, only a fraction of these individuals are working in the public mental health system serving clients with Medi-Cal. Almost 40% of the total respondents to a survey conducted by the BBS indicated that their primary practice setting was private practice. Limited racial and ethnic diversity and linguistic capacity amongst BBS licensees were also significant findings from this survey.[206] These data support information found in county WET needs assessments and information from key informant interviews that indicate high vacancy rates for, and difficulty in filling, licensed practitioner positions in public settings; particularly for those with individuals who are bi-cultural or are fluent in a county identified threshold language.

Bureau of Labor Statistics (BLS) data were also used to provide a comparison to other states. The categories used by the BLS are different than those used for licensing purposes therefore numbers do not match and are intended only to allow for comparison of California to other states.[207, 208]

### Table 84. Comparison of California's supply of mental health and substance use social workers per 100,000 persons and square mile to other states from the Bureau of Labor Statistics

| | California | New York | Texas | Illinois | Oregon |
|---|---|---|---|---|---|
| **N of MH and substance use social workers**[209] | 10,650 | 10,880 | 3,320 | 4,600 | 2,110 |
| **Per 100,000**[210] | 28.59 | 56.14 | 13.20 | 35.85 | 55.07 |
| **Per sq. mile** | .06 | .23 | .01 | .08 | .02 |

[206] California Board of Behavioral Sciences. (2007). *Demographic report on licensees and registrants*. Sacramento: Author.
[207] The BLS collapses data for counseling, clinical, and school psychologists, while California deems responsibility for licensing clinical and educational psychologists to different entities. Data for these psychologists will be reported in a later section.
[208] California did not report data for its Marriage and Family Therapists in 2010 so comparison data were not available.
[209] United States Bureau of Labor Statistics (2010, May). State occupational employment statistics survey.
[210] Based on 2010 US Census Bureau data.

**Table 85. Comparison of California's supply of mental health counselors per 100,000 persons and square mile to other states from the Bureau of Labor Statistics**

| | California | New York | Texas | Illinois | Oregon |
|---|---|---|---|---|---|
| **N of mental health counselors**[211] | 8,450 | 6,480 | 4,040 | 5,550 | 2,080 |
| **Per 100,000**[212] | 22.68 | 33.44 | 16.06 | 45.59 | 54.29 |
| **Per sq. mile** | .05 | .14 | .02 | .12 | .02 |

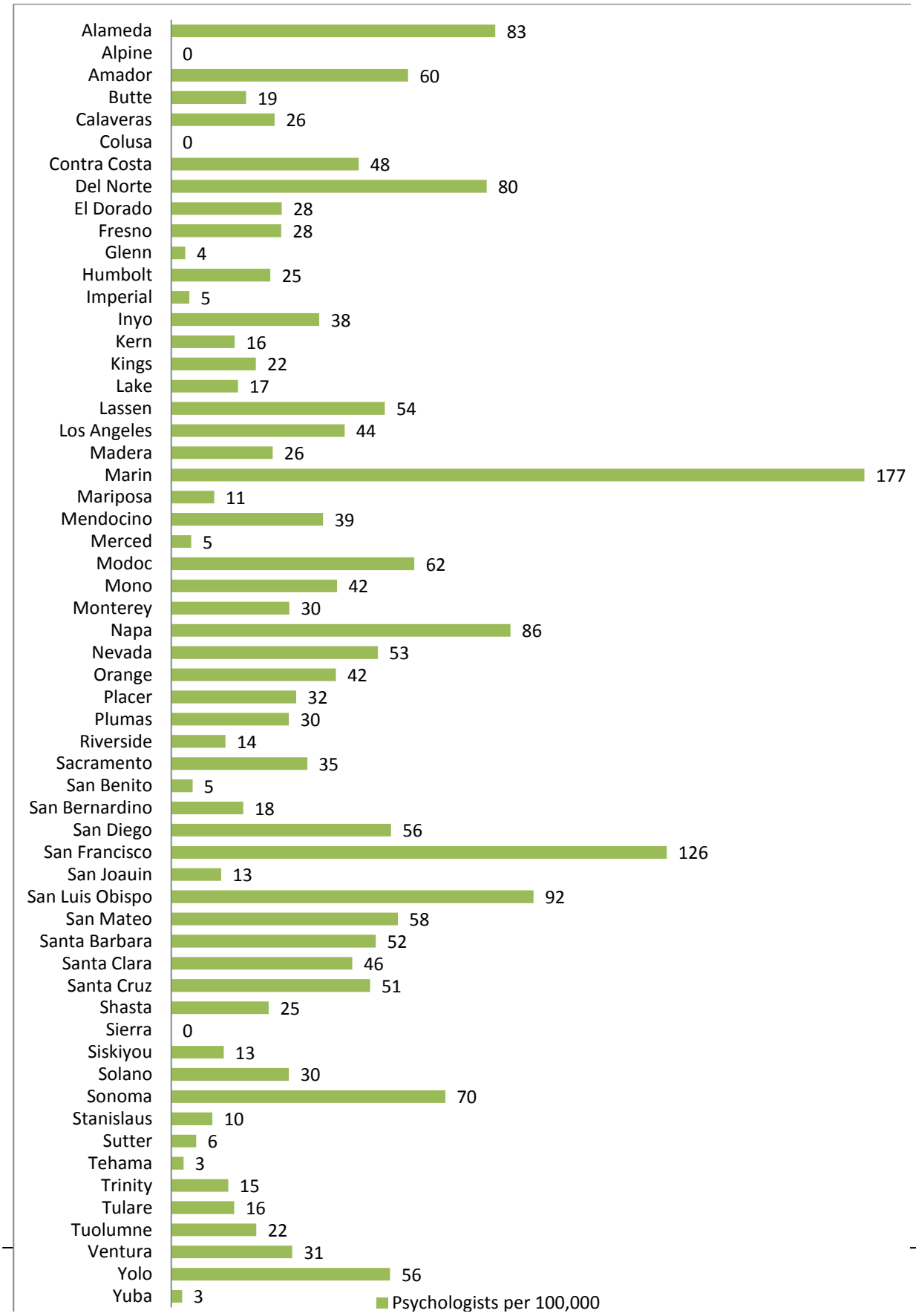
The BLS reports on several categories of social workers. The category of mental health and substance use social workers was selected for comparison purposes as it seemed to represent the category most likely to provide direct clinical mental health and substance use services within the public mental health system. While the licensing information from BBS indicates that California has a relatively high number of social workers per 100,000 (Table 85), only a fraction of these individuals work in the public mental health and substance use systems serving Medi-Cal beneficiaries. When using the more specific category of substance use and mental health social worker reported by the BLS (Table 86) these data indicate that California has fewer available mental health and substance use social workers than other comparison states with the exception of Texas. State comparison data were also available for mental health counselors (Table 87), which corresponds most closely to the licensed professional clinical counselor category which again indicates that California has fewer mental health counselors than other comparison states except for Texas. This may be related to the fact that California only recently allowed licensing for this category of mental health professional thereby deflating the number.

### *d) Licensed psychologists*

According to the California Board of Psychology there were 17,645 psychologists with a current and valid California license as of May 2011. Psychologists in California do not have prescribing authority. Currently only two states, New Mexico and Louisiana in addition to those working within the Indian Health Service and the military systems permit psychologists to prescribe medications. Data about language capacity and racial/ethnic composition of the psychology workforce were not available from the Board. However, the Board of Psychology, unlike some of the other Department of Consumer Affairs (DCA) boards[213] provides readily available numbers on the number of licensed psychologists by county thus allowing a county-by-county analysis of the geographic distribution of psychologists. Figure 7 shows the number of licensed psychologists by county.

[211] United States Bureau of Labor Statistics (2010, May). State occupational employment statistics survey.
[212] Based on 2010 US Census Bureau data.
[213] There are several licensing boards within the Department of Consumer Affairs including but not limited to the Board of Psychology, the Medical Board, and the Board of Behavioral Sciences.

## Figure 7. Distribution of psychologists per 100,000 people



These data indicated that the number of psychologists in rural counties such as Alpine, Colusa, Sierra, Yuba, and Trinity are quite small or non-existent. Some counties such as San Francisco, Marin, and Napa, have a high density of psychologists relative to the population. Interviews with several rural counties supported this finding as they reported that recruitment and retention of psychologists is difficult.

### Table 86. Comparison of California's supply of psychologists[214] per 100,000 persons and square mile to other states from the Bureau of Labor Statistics

| | California | New York | Texas | Illinois | Oregon |
|---|---|---|---|---|---|
| **N of psychologists[215]** | 15,510 | 10,300 | 5,710 | 4,460 | 1,220 |
| **Per 100,000[216]** | 41.63 | 53.15 | 22.70 | 34.76 | 31.84 |
| **Per sq. mile** | .10 | .21 | .021 | .08 | .01 |

When employment information from other states in compared, California has more psychologists per 100,000 people than other comparison states except New York. When looking at the data above in combination with the geographic distribution data, it suggests that the problem may not be inadequate supply of psychologists, but rather a mal-distribution of psychologists across the state.

#### *e) Licensed psychiatric technicians*

According to the California Board of Vocational Nursing, and Psychiatric Technicians are entry-level professionals who practice under the direction of a physician, psychologist, rehabilitation therapist, social worker, or registered nurse. Psychiatric technicians cannot independently practice in California nor can they prescribe medications. Psychiatric technicians are a nursing category parallel to Licensed Vocational Nurses. 2010 data from the Bureau of Labor Statistics report approximately 8,610 psychiatric technicians or 23 per 100,000 Californians. Compared to other workforce categories described above, LPTs are a more diverse group. In 2006, there were an equal percentage of White and Hispanic/Latinos graduates of psychiatric technician programs.[217]

[214] The BLS groups counseling, educational, and clinical psychologists into one category. The BBS conducts licensing for educational psychologists not the Board of Psychology.
[215] United States Bureau of Labor Statistics (2010, May). State occupational employment statistics survey.
[216] Based on 2010 US Census Bureau data.
[217] Lok, V. & Chapman, S. (2009). *The mental health workforce in California: Trends in employment, education, and diversity.* San Francisco: Center for the Health Professions.

### Table 87. Comparison of California's supply of psychiatric technicians per 100,000 persons and square mile to other states from the Bureau of Labor Statistics

| | California | New York | Texas | Illinois | Oregon |
|---|---|---|---|---|---|
| **N of psychiatric technicians**[218] | 8,610 | 1,270 | 9,200 | 3,840 | 400 |
| **Per 100,000**[219] | 23.11 | 6.65 | 36.59 | 29.93 | 10.44 |
| **Per sq. mile** | .06 | .03 | .04 | .07 | .004 |

When compared to other states, California has more than New York or Oregon but fewer than Illinois and Texas. Psychiatric technicians are a qualified provider of rehab option services but must be supervised as described above. Competition for these personnel from state hospitals and prisons which typically pay better than county mental health or private contractor positions means that recruitment and retention of these individuals can be difficult.

## 5. Non-licensed mental health and substance use counselors

### *a) Substance use counselors*

The Bureau of Labor Statistics (BLS) indicates that there were approximately 8,850 "substance use and behavioral disorder counselors" (this term is the one used by BLS in their reporting) as of May 2010 or about 23.76 per 100,000. California has the highest employment level for this occupation in the nation but when distributed per 100,000 people there are relatively fewer than in other states.

### Table 88. Comparison of California's supply of substance use and behavioral disorder counselors per 100,000 persons and square mile to other states from the Bureau of Labor Statistics

| | California | New York | Texas | Illinois | Oregon |
|---|---|---|---|---|---|
| **N of substance use and behavioral disorder counselors**[220] | 8,850 | 8,600 | 2,840 | 2,160 | 1,290 |
| **Per 100,000**[221] | 23.76 | 44.38 | 11.29 | 16.83 | 33.67 |
| **Per sq. mile** | .06 | .18 | .01 | .04 | .01 |

[218] United States Bureau of Labor Statistics (2010, May). State occupational employment statistics survey.
[219] Based on 2010 US Census Bureau data.
[220] United States Bureau of Labor Statistics (2010, May). State occupational employment statistics survey.
[221] Based on 2010 US Census Bureau data.

People with personal experience with addiction make up the vast majority of certified substance use counselors. While some individuals who deliver substance use counseling services may be licensed by one of the licensing entities described above, many are not. Unlike many other states, California does not license its substance use counselors. Rather, DADP recognizes organizations that are permitted to certify substance use counselors. Nine organizations are recognized by DADP to certify counselors they are:

- CA Association of Addiction Recovery Resources
- American Academy of Health Care Providers in the Addictive Disorders
- Association of Christian Alcohol and Drug Counselors
- Board for Certification of Addiction Specialists
- Breining Institute
- CA Association of Alcohol and Drug Educators
- CA Association of Drinking Driver Treatment Programs
- CA Certification Board of Alcohol and Drug Counselors
- CA Certification Board of Chemical Dependency Counselors
- Indian Alcoholism Commission of CA

While requirements for counselor certification vary by organization, DADP sets minimum requirements for certification which are:

- complete a minimum of 155 hours of specified education ;
- complete a minimum of 160 hours of supervised AOD training;
- complete 2,080 documented hours of paid or unpaid work experience providing counseling services in an AOD program;
- pass a written or oral examination (with a score of 70% or better);
- sign a statement documenting whether his/her prior certification as an AOD counselor has ever been revoked; and
- sign an agreement to abide by the certifying organization's code of conduct.

Section 13010, Title 9, Division 4, Chapter 8 Subchapter 2, of the California Code of Regulations requires that all non-licensed, non-certified individuals providing counseling services in an AOD program licensed and/or certified by DADP must be *registered* to obtain certification with one of the DADP approved certifying entities within 6 months of their hire date. Registrants then have five years from the date of their registration to complete the certification process. DADP requires that 30% of staff providing counseling services in all AOD programs be licensed or certified; all other direct counseling staff must

only be registered. Concerns about the supply of substance use counselors have been cited as a reason for the low percentage of licensed or certified staff required by DADP.[222]

### *b) Psychiatric rehabilitation counselors*

There are approximately 8,140 rehabilitation counselors in California.[223] The California Employment Development Department (EDD) describes a rehabilitation counselor as someone who counsels individuals to maximize the independence and employability of persons coping with personal, social, and vocational difficulties that result from birth defects, illness, disease, accidents, or the stress of daily life. [They] coordinate activities for residents of care and treatment facilities and assess client needs and design and implement rehabilitation programs that may include personal and vocational counseling, training, and job placement."[224] The EDD does not have specific data on how many of these rehabilitation counselors specifically focus on psychiatric rehabilitation. This group of professionals plays an important part in providing recovery oriented services to persons with mental illness.

### *c) Consumers/Peers*

Despite the important role peers and parent partners play in facilitating recovery, this workforce is underutilized in key roles throughout mental health and substance use systems both nationally and in California. While labor statistics for this workforce do not exist, county WET needs assessments offer some information about the penetration of peers in the public mental health system. A review of these needs assessments found that approximately seven percent of positions were specifically designated for consumers or family members with lived experience though many counties indicated that they do not specifically designate certain positions for consumers/family members.[225] Having peers/family members in a variety of roles throughout an organization, including in quality monitoring and evaluation, providing direct peer and family and support services, advising on policy direction and strategic planning efforts, as well as in key leadership roles, is necessary for a system that is truly inclusive of consumer and family voice and is responsive to the needs of the individuals the system serves. The need to increase the number of peers and family members working in the system was frequently voiced by many key informants. This issue is explored in more detail throughout the report.

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[222] Little Hoover Commission. (2008). Addressing addiction: Improving & integrating California's substance use treatment system. Sacramento: Author.
[223] United States Bureau of Labor Statistics (2010, May). State occupational employment statistics survey.
[224] California Employment Development Department. Retrieved from: *http://www.labormarketinfo.edd.ca.gov/*
[225] Shea. J. (2009). Licensed mental health professionals in California. Napa: Allen, Shea & Associates on behalf of the California Department of Mental Health.

## E. Occupational Outlook Data for Certain Mental Health and Substance Use Occupations

The California Employment Development Department provides labor statistics for numerous occupational categories, including projected job growth. Table 89 provides information about occupational demand for certain mental health and substance use professions. These numbers show that job growth for all categories of mental health and substance use workers is expected to increase at least as fast as average as compared to other occupations. Some categories such as mental health and substance use social workers and psychiatrists are expected to grow faster than average. These projections likely greatly underestimate the number of positions that will be needed as they do not necessarily take into account certain contextual factors such as increases in the numbers of people with access to health insurance, the mandated reductions in California's prison population, requirements for in-home behavioral treatment for certain youth in foster care resulting from the *Katie A.* lawsuit, and greater use of treatment as opposed to jail time for low-level drug offenses. Each of these factors is expected to create additional demand for skilled practitioners.

### Table 89. Occupational demand 2008--2018

| Occupational category | Estimated employment 2008 | Projected employment 2018 | Percent change between 2008-2018 | Growth compared to other occupations | Average annual openings[226] |
|---|---|---|---|---|---|
| **Clinical, counseling, and school psychologists** | 22,100 | 23,800 | +7.7% | About as fast as average | 790 |
| **Marriage and Family Therapists** | 6,200 | 6,700 | +8.1% | About as fast as average | 190 |
| **Mental health and substance use social workers** | 13,400 | 15,500 | +15.7% | Faster than average | 550 |
| **Mental health counselors** | 10,000 | 11,600 | +16% | Faster than average | 360 |
| **Rehabilitation counselors** | 7,700 | 8,400 | +9.1% | About as fast as average | 230 |
| **Substance use and behavioral disorder counselors** | 9,500 | 10,900 | +14.7% | Faster than average | 340 |
| **Psychiatrists** | 3,700 | 4,300 | +16.2% | Faster than average | 130 |
| **Psychiatric technicians** | 8,700 | 9,500 | +9.2% | About as fast as average | 300 |

[226] Average annual openings are the sum of average annual new jobs and replacements.

## F. RESULTS OF THE QUALITATIVE ANALYSIS

Several themes emerged from key informant interviews and through reviews of California specific workforce and provider capacity reports and documents regarding workforce and provider capacity issues. These themes are discussed below.

### 1. Range and type of providers

#### *a) Consumers/Peers*

The President's New Freedom Commission and SAMHSA both have identified the critical role peer and family support partners' play in a recovery-oriented and consumer and family-centered system of care. Despite this, neither peers nor family partners are specifically referenced as qualified providers under California's recently approved Rehabilitation Option State Plan Amendment, nor is peer support a covered service. This was a gap in the provider continuum identified by several key informants. DMH notes that these individuals are included under the broad category of "other qualified provider" so therefore may deliver covered Medi-Cal Rehab Option services under the direction of a licensed mental health professional who can direct services (e.g., LCSW, psychiatrist, MFT, etc.). However peer and family support services are distinct services that play an important role in helping peers and families engage in services, navigate complex provider and county social service systems, manage their (or their child's) illness, and provide invaluable social support. Many other states including Massachusetts, Pennsylvania, Oklahoma, Texas, Georgia, Wyoming, Connecticut, and Minnesota have peer and/or family partner support services as a distinct Medicaid reimbursable service.

Promotion of the employment of mental health consumers and family members is an area targeted by the workforce component of the MHSA. As such, MHSA money has been utilized to pay for certain peer support services at the county-level. However the use of peers and family partners varies greatly from county to county. Several counties reported difficulty in directly hiring consumer and family members due to unyielding human resources policies that require a certain educational degree or years working in a particular field that cannot be substituted for lived experience. Greater success was reported in contracting for this workforce with outside organizations. Some counties such as Alameda, San Francisco, and Fresno have made significant efforts to increase the number of positions dedicated to persons with lived experience. Other counties such as Sonoma do not specifically designate county-level positions for persons with lived experience. As noted in the California External Quality Review

Organization (CAEQRO) statewide report from June 2009, "very few mental health plans (MHPs) employ consumers and family members in key delivery system roles."[227]

MHSA money has also been used to pay for statewide training and technical assistance center called Working Well Together that has its goal "ensuring public mental health agencies are prepared to recruit, hire, train, support and retain multicultural clients, family members and parents/caregivers as employees."[228] Their efforts have focused in part on helping counties' human resource divisions better understand the unique benefit issues and changes to job requirements/descriptions they may need to make in order to successfully hire and retain consumers and family members. Despite the efforts of this group and others in the state to promote the development of these staff, county WET needs assessments indicate that significant occupational shortfalls exist for consumer and family support staff.

### *b) Licensed Professional Clinical Counselors*

California was the last state in the country to license mental health counselors. These master's level counselors are currently not included as one of the qualified provider types under the most recently approved version of the rehab option. While it is likely that many of LPCCs are already providing services under the rehab option they may only do so under the direction of another licensed professional. Inclusion of LPCC as provider type under the rehab option was identified by some key informants as a relatively easy way to expand the number of individuals who could provide rehab option services. It was also cited as a strategy for utilizing limited supervisory resources more efficiently by expanding the number of available practitioners who can provide supervision to others as well as eliminating the requirement that these counselors be supervised by another licensed professional. Vacancy rates for managerial and supervisory positions among county contractors have been reported to be as high as 14%.[229]

It should also be noted that due to hiring freezes and budget cuts the BBS is under-resourced creating delays in the processing of applications for licensure for all BBS licensee and registrant categories. The addition of a new licensure category contributes to this issue with delays in processing applications ranging from 2-5 months.

[227] APS Healthcare (2009). California
[228] Working Well Together. Retrieved from: *http://workingwelltogether.org*
[229] Shea, J. (2009). *California's Public Mental Health Workforce: A Needs Assessment.* Sacramento, CA: California Department of Mental Health.

## 2. Workforce characteristics

### *a) Racial and ethnic diversity and linguistic capacity*

The need for a more racial and ethnically diverse workforce reflective of the population served by the mental health and substance use systems was a recurrent theme throughout key informant interviews and the various reports reviewed for this assessment. It has been widely recognized that the behavioral health workforce both nationally and in California does not reflect the ethnic, cultural, and linguistic diversity of the populations served by the public behavioral health system.[230, 231]

According to the 2010 US Census almost 38% of the population of California is of Hispanic/Latino origin.[232] In Los Angeles County alone, it is reported that 36% of residents are foreign born and 57% speak a language other than English.[233] While the population of California reflects incredible diversity, the mental health and substance use workforce remains predominately Caucasian, English-only speakers. When compared to the population served by the public mental health system, Caucasians and Asian/Pacific Islanders[234] have been found to be overrepresented in the workforce, while Hispanic/Latino and African-Americans were underrepresented.[235] While the development of a mental health and substance use workforce that is more reflective of the population served is one of the explicit goals of the workforce component of the MHSA, there remains a significant lack of diversity among the mental health and substance use workforce particularly at the licensed clinical practitioner and administrative levels.

A review of selected county workforce needs assessments completed as part of the workforce component of the MHSA found that while some counties identified congruence between the racial ethnic make-up of the public mental health workforce and the population served (Tulare, Merced), most did not (Orange, Fresno, San Diego, Humboldt, Contra Costa, Solano, Los Angeles) with disparities particularly acute for the Hispanic/Latino population. The BBS, which licenses the majority of mental health and substance use practitioners in the state, does not routinely collect or report information about the demographic

[230] California Department of Mental Health. Mental Health Services Act Five-Year Workforce Education and Training Development Plan for the Period April 2008 to April 2013.
[231] Annapolis Coalition on the Behavioral Health Workforce. (2007). *An Action Plan for Behavioral Health Workforce Development. A Framework for Discussion*. Annapolis, MD: Author.
[232] U.S. Census Bureau: State and County QuickFacts. (2010).
[233] County of Los Angeles Department of Mental Health. (2008). *Workforce Education and Training Plan*. Los Angeles: Author.
[234] Several WET assessments noted that the Asian/Pacific Islander group is comprised of many different subpopulations. If broken down into these discrete categories (e.g. Vietnamese, Hmong, Chinese, etc.) these discrete groups would likely be underrepresented.
[235235] Shea, J. (2009). *California's Public Mental Health Workforce: A Needs Assessment.* Sacramento, CA: California Department of Mental Health.

characteristics of its licensees and registrants. However, in the fall of 2006 the BBS conducted a survey to better understand the racial and ethnic composition of this workforce as well as information about linguistic capacity, age, and primary practice setting.[236] Results indicated that the overwhelming majority, 74%, identified as non-Hispanic white. Similar findings indicating a lack of diversity among counselors serving people with substance use disorders has also been found. A 2007 survey of substance use professionals conducted by the County Alcohol and Drug Program Administrators' Association of California (CDADPAAC), in partnership with the California Association of Alcoholism and Drug Use Counselors (CAADAC) and Orion Health Care identified an underrepresentation of persons of Hispanic/Latino origin among the substance use practitioner survey respondents, presenting a challenge for meeting the treatment needs for this population. This lack of diversity amongst the provider workforce is one contributing factor leading to mental health access disparities particularly for the Hispanic population who have been found less likely to receive services than non-Hispanic Whites.[237]

Language proficiency was another area of particular concern cited by multiple key informants, one that presents a significant challenge for counties trying to ensure access to care for their non-English speaking client populations. The DMH Office of Multicultural Services reports that one in five Californians (approximately 6-7 million) are limited English proficient.[238] A review of county workforce needs assessment found that, an additional 6,092 individuals with proficiency in Spanish, 330 in Tagalog, 357 in Chinese, 274 in Vietnamese, 138 in Cantonese, and 103 in Farsi were reported by the counties as needed to meet demand.[239] The aforementioned survey by the Board of Behavioral Sciences which licenses social workers and marriage and family therapists among others, found that linguistic diversity was quite limited amongst this group of practitioners with only 11% of respondents reporting that they could speak Spanish compared to approximately 26% of the general population of the state. Only 1.21% of respondents reported they could speak Chinese and 0.42% of respondents reported they could speak Korean.

Increasing employment opportunities for underrepresented racial/ethnic populations in the public mental health system is an explicit goal in DMH's Five-Year Workforce Education and Training Development

[236] California Board of Behavioral Sciences. (2007). *Demographic report on licensees and registrants*. Sacramento: Author.
[237] APS Healthcare. *California External Quality Review Organization Statewide Report Year Four FY 07-08: July 1, 2007 – June 30, 2008*. Sacramento: Author.
[238] California Department of Mental Health, Office of Multicultural Services. (2009). Fact sheet: Language access. Sacramento: Author. Retrieved from: *http://www.dmh.ca.gov/Multicultural_Services/docs/LanguageAccessFactSheet-Final-July2009.pdf*
[239] Shea, J. (2009). *California's Public Mental Health Workforce: A Needs Assessment.* Sacramento, CA: California Department of Mental Health.

Plan. Monitoring of progress on workforce development will be an important function of the re-configured Department of Mental Health.

### *b) Skills and competencies needed*

In interviews with key informants and throughout various documents reviewed for this assessment, several themes emerged regarding the types of skills and competencies needed in the workforce in order to best meet the needs of current and future Medi-Cal beneficiaries. Skills in the assessment and treatment of people with co-occurring mental health and substance use disorders was one of the most frequently identified competencies. Nationally approximately 8.9 million adults have a co-occurring disorder, but only 7.4% receive treatment for both conditions and almost 56% receive no treatment at all.[240] This treatment disparity is due in part to the vastly different financial resources for the treatment of mental health and substance use disorders in the state.[241] For example, in 2009, Medi-Cal spending for mental health was $3,402, 989, 285 and $406,019,354 was spent on substance use treatment.[242] The lack of formal integration and coordination around the treatment of co-occurring disorders at the state and county levels also contributes to this problem at the provider/practitioner level. For example, as seen in Appendix D, Table 1, of the 4,054 Medi-Cal providers who submitted a claim for mental health or substance use services, only 11% or 428 providers, submitted claims for both mental health AND substance use services.

It was also noted by some key informants that among the substance use provider community, stigma associated with serious mental illness leaves some in the SUD workforce reluctant to work with persons with serious mental illness. The same was true on the mental health treatment side with many mental health practitioners not willing or interested in working with people with substance use disorders. As one key informant with experience as an addiction provider, researcher, and policy maker described, “If you walk into a substance use clinic you will get treatment for your substance use disorder, if you walk into a mental health clinic you will treatment for your mental health problem, but no one will treat you for both.” It should be noted here that California, unlike many other states, does require its licensed psychologists, social workers, LPCCs, and MFTs to have coursework in the detection and treatment of alcohol and other substance use dependency. While this is an important starting place, until there is

[240] Substance Use and Mental Health Services Administration, Office of Applied Studies, National Survey on Drug Use and Health, 2008 and 2009.
[241] Little Hoover Commission. (2008). Addressing addiction: Improving & integrating California’s substance use treatment system. Sacramento: Author.
[242] These figures are based on claims data from 2009 using codes identified as mental health and substance use services. These figures likely represent an undercount of actual services delivered and expenditures.

greater integration at the systems level with regard to policies, financing, regulation, cross-system training and collaboration, it will be difficult to achieve integration at the services level. Some counties have recognized that having a workforce skilled in working with people with co-occurring disorders and trained in evidenced-based model such as Integrated Treatment for Co-Occurring Disorders. There remains much work to do however, in promoting this competency among the mental health and substance use workforce in California. With both funding and workforce limited, enhancing the co-occurring competency of the mental health and substance use workforce would be one way to more efficiently use available resources and ensure people receive the treatment they need no matter what door they enter.

There have been some notable efforts at the county level to train and educate the workforce on best practices in the treatment of co-occurring disorders, mostly by leveraging MHSA dollars. For example, Los Angeles County has partnered with the UCLA-Integrated Substance Use Program to offer numerous trainings on working with people with co-occurring disorders. LA has even appointed a countywide co-occurring disorder (COD) training coordinator to oversee these efforts.[243] San Diego County also reports having conducted trainings for its workforce on best practices in COD including the creation of a learning collaborative focused on improving treatment of COD. Lassen County held a multi-day training in the spring of 2010 for its administrative staff on Dual Diagnosis Capability in Mental Health Treatment assessment as a way to improve integration of mental health services. Lassen County also specifically identified a goal of increasing enrollment in their Outpatient MH/AOD integrated program as part of the NIATx project.[244] Other counties continue to struggle with integration of care for this population. Separate intakes are required for persons in need of mental health and substance use services in Tehama County, for example.[245]

Another area of workforce development need is the provision of culturally competent care. Given the great diversity of California this was viewed as a critical need. California has historically been a leader in efforts to reduce disparities and promote access to culturally and linguistically competent care; California was the first state to require its counties to develop cultural competence plans for example. There have been numerous workforce initiatives and trainings at both the state and county levels to develop and promote a more culturally competent workforce as a way to address access disparities for underserved populations. Some counties such as Los Angeles have worked to promote cultural competency in their workforce by ensuring that it is not only a clearly articulated value but one that is infused into every

[243] APS Healthcare (2011). CAEQRO Report, FY 10-11: Los Angeles. Retrieved from: *http://www.caeqro.com*
[244] NIATx is a model of process improvement used across the county to help providers better engage and retain individuals in mental health and substance use services.
[245] APS Healthcare (2011). CAEQRO Report, FY 11-12: Tehama County. Sacramento: Author.

aspect of its operation from hiring practices to provider network development, quality monitoring and evaluation, training and continuing education, and clinical supervision and training. While California is certainly much farther along than many other states when it comes to the promotion and development of a culturally competent workforce, the need to enhance the skills of the workforce in this area remains, particularly in light of the fact that the population of California is becoming increasingly more diverse. It is also important to consider here that culture is more than just race or ethnicity. Truly individualized care, care that is consumer and family driven and culturally competent, also means practicing in a way that values and is curious about an individual's family norms and beliefs, and/or religious practices as well. Expanding the concept of culture to include these notions as well will help promote a more inclusive understanding of cultural competency. As identified by one county in a report of county workforce needs, "We need staff that are competent in other cultures as well, such as gay/lesbian, substance use recovery and consumer culture."[246]

Key informants also noted that many clinicians working in the field today have not been trained in providing care that is client/family centered or recovery-oriented; a critical misalignment with the type of practice endorsed both at the county and state mental health and substance use levels as the type of care that matches with their vision for how services should be delivered. Care that is consumer centered and recovery-oriented is an important component of a "good and modern" mental health and addiction system. Staff from one county noted that there is, "no real curriculum support around recovery oriented care". While the field is demanding a workforce skilled in providing care that is recovery-oriented, graduate training programs lag far behind, creating a large gap, one that county agencies struggle to fill given limited resources.

Additional areas identified for further workforce training development mentioned by key informants were skills in working with young children, the elderly, LGBTQ community, persons involved with juvenile or criminal justice and transition age-youth.

## 3. Licensing and certification issues

### *a) Substance use counselor qualifications*

The issue of standards and qualifications for substance use counselors came up repeatedly in key informant interviews and in our reviews of various documents obtained during the course of this

[246] Shea, J. (2009). *California's Public Mental Health Workforce: A Needs Assessment.* Sacramento, CA: California Department of Mental Health.

assessment. Many expressed serious concern that the standards for substance use counselors in the state are too low. There is neither a common certification test nor standardized curriculum for substance use counselors across the nine DADP approved credentialing organizations. While DADP recently undertook an effort to gain consensus on the development of a common certification exam, agreement could not be reached. Several key informants identified that some of the certifying organizations are not training people in state of the art or evidenced-based practices such as medication assisted treatments and/or do not endorse the fact that addiction is a chronic disease but rather a moral failure. Even when aware of high quality treatment practices such as SAMHSA's Treatment Improvement Protocols, many are not utilizing them in their work.[247] Results of a 2007 survey of substance use professionals conducted by the County Alcohol and Drug Program Administrators' Association of California found that the preferred treatment model of survey respondents was AA/Twelve Step.[248]

While there have been attempts to improve the standards and education for these counselors such as SB 707, an administration sponsored bill to improve standards and education, this bill do not pass. Efforts to move forward on licensure for this occupational category have also been strongly challenged by professional organizations representing licensed mental health professionals in the state. A 2008 report by the Little Hoover Commission identified that the state has routinely elected not to strengthen requirements for substance use counselors due to concerns that this will suppress the supply of workers thus choosing "quantity over quality."[249] Suggestions provided by the Commission for improving the quality of the substance use counselor workforce include development of tiered licensing system that would allow counselors with varying levels of education and experience to attain licensure at different levels, or as creation of a common certification exam and curriculum across the certifying organizations these have not been implemented to date.

There have been efforts at the county level to improve standards for the SUD workforce. Santa Clara County has been noted for its attempts to pay for quality through use of performance-based contracts that reward providers for making improvements such as reducing turn-over, enhancing supervisory requirements, and increasing the number of certified counselors on staff.[250] Both high staff turn-over and lack of a standard for clinical supervision have been identified as problems. The aforementioned

[247] Pacific Southwest Addiction Technology Transfer Center (2008). CADPAAC's 2007 alcohol and other drug use treatment workforce survey. Retrieved from: *http://cadpaac.org/downloads/Workforce%20Survey-Final%20Report.pdf*
[248] Ibid.
[249] Little Hoover Commission. (2008). Addressing addiction: Improving & integrating California's substance use treatment system. Sacramento: Author.
[250] Ibid.

CDADPAAC survey found that almost 56% of survey respondents indicated that they worked in their current agency for three years or less. While increasing payments meant having fewer dollars available to serve a larger volume of people in need of treatment, these type of quality improvement efforts can help create a more efficient and effective system that may eventually be able to serve more people in the long-run.

### *b) Certification for peer/family workforce*

As mentioned earlier, no statewide certification process exists for the consumer or family member workforce. It was reported however, that there are early efforts underway to develop a curriculum and study what it would take to implement a standardized peer certification process. Having a single state sanctioned certification process for peer/family supports is important for it recognizes the special skill set and competencies that are required for these positions. It also lends credibility and legitimacy to the role by marking it as a distinct profession. Several states have a statewide peer certification including Pennsylvania, Georgia, New Jersey, and New Mexico. If California moves at some point to include a distinct peer and/or family support service covered by Medi-Cal, having an established certification process will be an important aspect of the design of the provider qualifications for this service.

## 4. Location and proximity factors

Access to and availability of mental health and substance use providers and practitioners in rural areas was a frequent concern highlighted by multiple key informants. As highlighted in earlier sections of this chapter, mal-distribution of the workforce is clearly evident with some rural areas having no psychologists or psychiatrists and extremely limited numbers of other licensed practitioners such as social workers. Access to acute inpatient and medical detox services in rural areas are also limited, with large geographic areas having no capacity at all. As indicated previously, 19 counties do not participate in the Drug Medi-Cal program (Figure 8), with 15 of the 19 not having any certified Drug Medi-Cal providers willing to participate in the program.[251]

Health Resources and Services Administration (HRSA) data on mental health professional shortage areas indicate the scarcity of mental health practitioners' in particular geographic areas. As of June 2011, 133 geographic areas in California were designated as mental health professional shortage areas. [252]

[251] These counties are: Alpine, Amador, Calaveras, Colusa, Del Norte, Glenn, Inyo, Modoc, Mono, Plumas, Sierra, Siskiyou, Trinity, Tuolumne, and Sutter.
[252] Health Resources and Services Administration. (2011, September). *Health Professional Shortage Areas for California as of September, 2011*. HRSA, Office of Shortage Designation, Bureau of Health Professions.

Approximately 3,786,000 people or 10.2% of the population of California, reside in one of the mental health professional shortage areas. See Attachment 1 to this chapter for a list of criteria. This does not mean that all of the people living in these areas need or want mental health services, but that the availability of mental health professionals in the area is limited. It also does not mean that people who do not live in an underserved have adequate access to mental health professionals; as other factors such as practitioner language capacity or access to transportation can certainly impact access to care as well.

### Table 90. California's estimated number of residents living in mental health professional shortage areas compared to other states.

| | California | | New York | | Texas | | Illinois | | Oregon | |
|---|---|---|---|---|---|---|---|---|---|---|
| | N | % | N | % | N | % | N | % | N | % |
| **Estimated population living in MHPSA** [253] | 3,786,000 | 10.2 | 1,420,619 | 7.3 | 6,234,684 | 24.8 | 4,403,981 | 34.3 | 842,160 | 22 |

[253] Kaiser Family Foundation (2011). State Health Facts. Retrieved on December 20, 2011 from: http://www.statehealthfacts.org

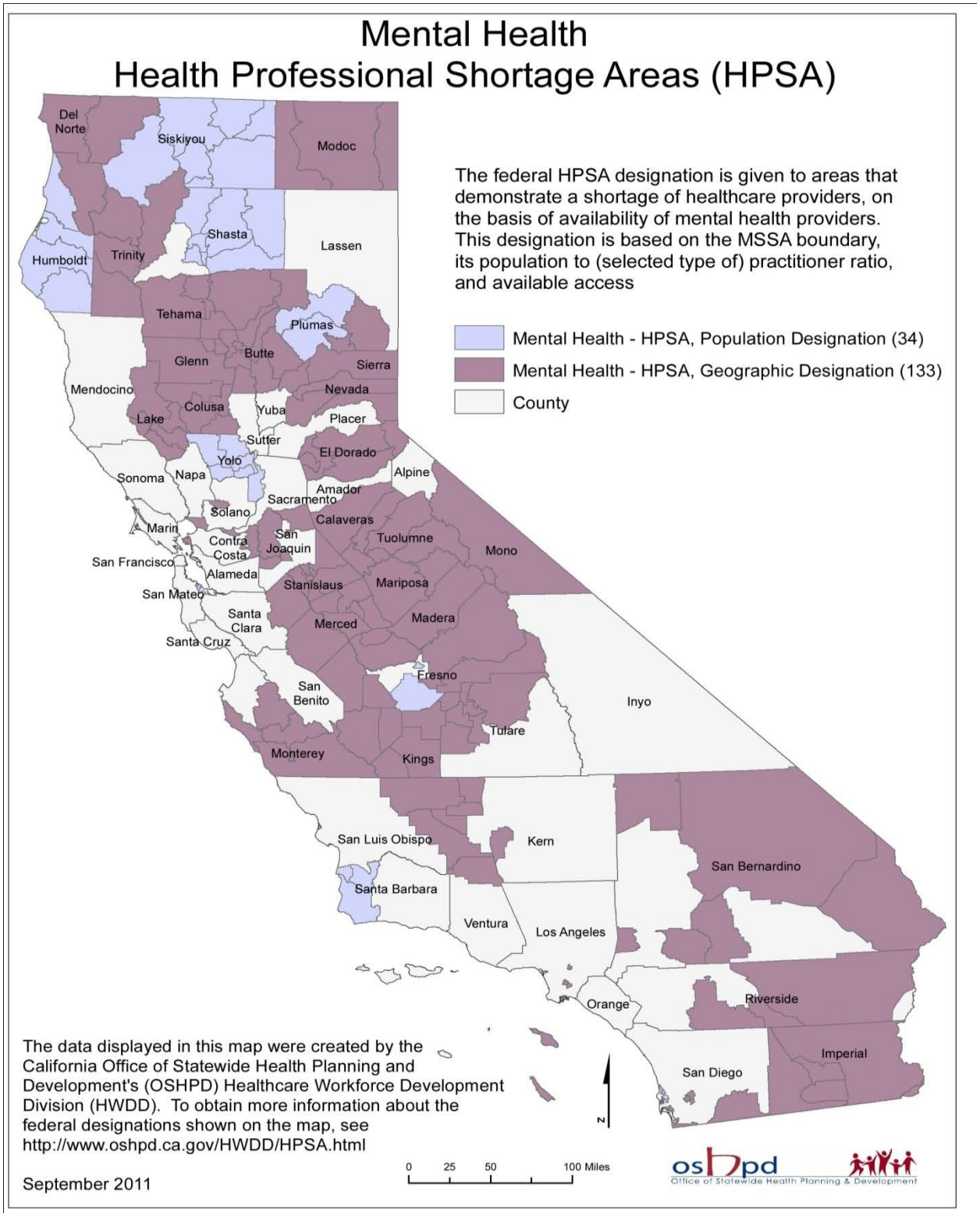
## Figure 8. Map of county participation in the Drug Medi-Cal program

These designations help play an important role in workforce development. Designation as a mental health professional shortage area (MHPSA) can help people participate in student loan forgiveness or repayment programs, obtain scholarships, and allow psychiatrists from other counties to obtain a J-1 visa in return for working in a MHPSA.

As the map below reflects, rural counties are particularly hard hit by shortages of mental health professionals. Rural areas experience unique challenges in the recruitment and retention of qualified mental health and substance use practitioners such as having a small pool of available workers, limited local educational opportunities, and geographic barriers such as transportation.[254] Key informants from rural areas noted that the high cost of living and relatively low wages make recruitment of staff difficult. Efforts by various groups to increase the mental health and substance use workforce in rural areas of California have occurred throughout the state, largely by leveraging MHSA dollars. For example the MHSA Regional Partnership in the Superior region has worked to support a distance learning system for social workers. Several rural counties noted that sharing staff across counties could be one way to maximize resources and create economies of scale, but this type of regional effort have not gotten traction. Use of tele-health to increase access to psychiatry in rural areas has also emerged in several rural counties. Use of this particular strategy as a way to improve access to mental health and substance use services in rural areas will be discussed in more detail in a later chapter. Federally Qualified Health Centers (FQHCs) were identified by several counties as playing an important role in helping facilitate access to services in rural areas. Developing stronger connections between county mental health and substance use departments and FQHCs was cited as a goal for several rural counties. Despite these efforts, there remains a significant challenge in helping people with mental health and substance use issues in rural areas gain access to the services and supports they need.

[254] Foster, G., Shilton, A., Keefer, B. (2011). Mental health workers: Future growth and critical shortages. Presentation at the National Association of Rural Mental Health Providers Conference.

## Figure 9. Mental health professional shortage areas in California



## 5. Timeliness and availability of services

Long waits for services, particularly psychiatry, were reported in many counties with some waits as long as six to eight weeks. Key informants also noted that availability of substance use disorder services was almost non-existent for people not referred through the criminal justice system. The limited availability of mental health services for people not meeting criteria for services available through the specialty mental health plans was reported as a particular issue by multiple key informants. Budget cuts have compounded these problems as many counties have instituted hiring freezes. Alameda County for example reports a 33% vacancy rate[255] Budget cuts have also resulted in reduced operating hours for mental health services in some counties, further limiting the capacity of the system to provide timely care to people in need of services.

Wait time to access an appointment for mental health or substance use services is a useful indicator of provider capacity. Despite the usefulness of tracking data on time from request for service to appointment, there is considerable variation among the specialty mental health plans as to the collection or monitoring of these data to improve performance in this area. As noted in recent CAEQRO reports, several counties' specialty mental health plans such as Kings, Alpine, Butte, Colusa, Del Norte, and Tehama, do not track or trend data on initial contact to first psychiatric appointment. Tracking and trending data on access to follow-up appointments after hospitalization or access to urgent conditions is also variable. Del Norte County was cited in its most recent CAEQRO report as not setting a standard for time to post-psychiatric hospitalization follow-up. Given the lack of consistent standards and/or collection or use of these data, there is no statewide information regarding wait times, and availability of these data varies greatly from county to county.

A review of recent CAEQRO reports found delays in accessing care in some counties may be a result of elaborate intake or authorization processes and procedures with layers of various types of appointments prior to initiation of therapeutic services. For example, CAEQRO cited time of first appointment appeared delayed in some counties as combinations of the following activities were used: screening, orientation visits, and/or intake assessments, all prior to enrollment into treatment. Other counties such as Tehama have separate screening and intake processes for people seeking mental health and substance use treatment services. These types of administrative barriers can serve to reduce engagement in treatment resulting in no-shows and premature drop-out of treatment.

[255] APS Healthcare. (2010). CAEQRO Report, FY 10-11: Alameda County. Sacramento: Author.

In addition to monitoring timeliness of access, monitoring penetration rates as a way to assess how well particular populations are being served by the system is also an important strategy for improving access to care for underserved populations. While counties such as Los Angeles, Sonoma, San Francisco, and Riverside were identified in CAEQRO reports to utilize penetration rate information as a way to monitor and improve access to care, other counties such as Alameda, Shasta, and Del Norte do not.

Lack of timely access to appropriate outpatient mental health and substance use services can be a contributing factor to emergency department utilization as well as increased use of jails and other de-facto settings. The California Hospital Association (CHA) reports that in the past year, hospital emergency departments in some areas of the state have experienced a 400% increase in the numbers of persons with psychiatric disorders being seen in their emergency departments[256] The analysis of emergency department utilization between 2007—2009 discussed in Chapter IV indicates that ED utilization remained relatively stable among Medi-Cal beneficiaries during that time period. Of course, not all of the reported increase in ED utilization can be attributed to Medi-Cal beneficiaries but may also be driven by the uninsured and those with other types of insurance coverage. Also, the information reported by the CHA states that ED utilization has increased significantly *in the past year*, at the time of this report we did not have complete claims data from 2010 or data from 2011 to confirm whether there was a large increase in ED utilization by Medi-Cal beneficiaries during these years.

## G. CONCLUSION

As discussed earlier in this report, assessing provider capacity is incredibly challenging. This is due in part to the fact that much of the data available to assess capacity are proxy measures such as hospital inpatient bed capacity or number of licensed practitioners. This type of information reveals limited and incomplete information about the capacity of the system. Even knowing the number of Medi-Cal providers does not mean that their full capacity is dedicated to Medi-Cal beneficiaries. This is particularly true for outpatient and inpatient providers who also serve people with other insurance products as well as people who are uninsured. The data reported here also presents an incomplete picture of the overall mental health and substance use systems' capacity to serve people in need of mental health and substance use services. Medi-Cal beneficiaries receive mental health and substance use services from a variety of other sources (e.g. housing, education, corrections, child welfare, etc.) that are not captured in Medi-Cal claims data or in counts of qualified Medi-Cal providers.

[256] Kruckenberg, S. (personal communication, November 16, 2011).

The qualitative data presented here, such as long wait times for access to certain services such as inpatient detoxification and psychiatry along with the penetration rate data discussed in Chapter IV of this report do suggest a large unmet need for mental health and substance use services. Provider capacity issues may be a factor contributing to this unmet need, but they are not the only reason. Monitoring access to care and sufficiency of provider networks will be an important activity of DHCS as it assumes these functions from DMH and DADP.

Notwithstanding the above, it must be stated that if providers have the right incentives and enough people needing and wanting services, they can typically grow to meet demand. Of course constraints do exist. The limited availability of psychiatrists, language capacity issues, the limited availability of practitioners from diverse racial and ethnic backgrounds, and challenges recruiting and retaining staff in rural areas do impose some limits on the ability of providers to meet demand. Enhanced efforts are needed to increase the availability of qualified psychiatrists working in the public mental health and substance use systems, recruitment of qualified individuals from diverse racial and ethnic backgrounds as well as those who can deliver services in languages other than English, in addition to increasing the available workforce in rural areas. These should continue to be priorities for county mental health and substance use departments as well for those statewide entities charged with workforce development activities.

In addition to the areas mentioned above, this report also identified issues related to provider capacity and workforce issues similar to those documented in several reports and studies of the issues that have been published over the years. These issues include:

- Need for enhanced qualifications and standardized credentialing process for substance use counselors;
- Underutilization of peers and family members in the provision of mental health treatment services;
- Variability in use and training of staff across the counties in state-of-the art and evidence-based treatments such as ACT, SBIRT, MST, or medication assisted therapies;
- Lack of coordination across mental health and substance use providers and practitioners for the treatment of people with co-occurring disorders;
- Need for more culturally responsive and competent provider practices to engage underserved populations;
- Need for a workforce with limited training in the provision of recovery-oriented care; and

- Need for more collaboration across systems such as stronger partnerships between FQHCs and county mental health and substance use departments.

These findings are unsurprising and are likely well known to policy makers, advocates, consumers, and providers, but serve to reinforce and clarify the issues. The next stage of this process, the planning phase, will help prioritize the issues to focus on as far as the development of provider and workforce capacity. This is particularly true as it relates to developing outpatient mental health and substance use provider capacity, as these are the providers who are most likely to see an increase in demand, pending final determination of the local benchmark plan California DHCS decides to use to define the essential services for mental health and substance use services for the expansion population.

## ATTACHMENT 1: HRSA MENTAL HEALTH PROFESSIONAL SHORTAGE AREA DESIGNATION CRITERIA

1. The area is a rational area for delivery of mental health services.

2. One of the following conditions exists within the area:

    a. population-to-core mental health professional154F[257] ratio greater than or equal to 6,000:1 and a population psychiatrist ratio greater than or equal to 20,000:1; or

    b. a population-to-core-professional ratio greater than or equal to 9,000:1; or

    c. a population-to-psychiatrist ratio greater than or equal to 30,000:1

3. The area has unusually high needs for mental health services defined as:

    a. 20% or more of the population is ≤ 100 % of the poverty level, **or**

    b. The youth ratio (# of persons < 18 to the # of adults ages 18 - 64) is greater than 0.6, **or**

    c. The elderly ratio (# of persons ≥ 65 to the # of adults ages 18 - 64) is greater than 0.25, **or**

    d. Alcohol or substance use prevalence data showing the area to be in the worst quartile of the nation, state, or region; **and** has:

    e. a population-to-core mental health professional ratio greater than or equal to 4,500:1, and a population-to-psychiatrist ratio greater than or equal to 15,000:1; **or**

    f. a population-to-core professional ratio greater than or equal to 20,000:1

[257] The term core mental health professional includes psychiatrists, clinical psychologists, clinical social workers, psychiatric nurse specialists, and marriage and family therapists meeting federal criteria.

# X. HEALTH INTEGRATION

## A. MOTIVATION FOR THIS PORTION OF THE NEEDS ASSESSMENT

### 1. Relation to 1115 Terms and Conditions

Health statistics for persons with mental health and substance use disorders are startling:

- The life expectancy for persons with serious mental illness (SMI) is 25 years shorter than the general population.[258]
- People with serious mental illness have higher rates of so-called "modifiable" health risk behaviors (e.g., smoking, alcohol use, poor nutrition, lack of exercise, etc.) that place them at increased risk for developing a chronic condition.[259]
- One in five persons with coronary heart disease had co-occurring depression.[260]
- People with co-occurring diabetes and depression had more severe symptoms of both conditions than those with diabetes alone.[261]
- Prevalence of diabetes, heart disease, cerebrovascular disease, arthritis, and heart failure was three times higher among Medi-Cal beneficiaries with serious mental illness than the general Medi-Cal population.[262]
- One study of Medi-Cal beneficiaries with SMI found that they were more likely to be hospitalized for non-psychiatric reasons than a comparable group without SMI, with rates particularly high for Latinos with SMI.[263]
- People with substance use disorders frequently have one or more medical problems resulting from their use including lung and cardiovascular disease, stroke, and cancer.[264]

While these statistics reflect the fact that physical, mental health and substance use problems commonly co-occur, the treatment systems largely remain segregated. With different providers, pathways to care,

[258] Parks, J., Svendsen, D., Singer, P., Foti, ME., (Eds.) (2006). *Morbidity and Mortality in People with Serious Mental Illness*. Alexandria, VA: National Association of State Mental Health Program Directors.
[259] Ibid.
[260] National Academy of Sciences. (2006) Improving the Quality of Health Care for Mental and Substance-Use Conditions: Quality Chasm Series. Washington, D.C. National Academies Press.
[261] Ibid.
[262] Jen Associates. (2010). *Beneficiary Risk Management: Prioritizing High Risk SMI Patients for Case Management/Coordination.* Cambridge: Author.
[263] Cashin, C.E., Adams, N., Handon, B. (2008). Excess non-psychiatric hospitalization among Medi-Cal beneficiaries with serious mental illness in California. Retrieved on November 14, 2011 from: *http://www.dhcs.ca.gov/provgovpart/Documents/CalMEND/CalMENDexcesshospitalization063009.pdf*
[264] National Institute on Drug Use. Retrieved on November 23, 2011 from: *http://druguse.gov/scienceofaddiction/health.htm*

delivery and payment systems, information systems, and unique cultures, navigating between these systems is an extremely difficult task for anyone.[265] For individuals with mental health and substance use issues, it can be become an almost insurmountable task. The lack of coordination can lead to a variety of negative events. These include medications being changed by one doctor without the awareness of the original prescriber, clinicians offering conflicting advice, and symptoms of a physical or mental health or substance use condition going unrecognized and untreated. The result is an increased risk of complications or adverse events, over-utilization of emergency departments or other institutional settings, dissatisfaction with the healthcare system, and sub-optimal care. The costs to the Medi-Cal program for poorly coordinated care for this population are not insubstantial. One study identified almost $16 million in Medi-Cal costs associated with non-psychiatric hospitalizations for persons with serious mental illness.[266]

We know too that integration of care is not only a challenge for physical health and behavioral health (both mental health and substance use) but for mental health and substance use as well. While it is well known that mental health and substance use problems commonly co-occur, care is not well-integrated for persons with mental health and substance use conditions. Nationally, approximately 8.9 million adults have a co-occurring disorder, but only 7.4% receive treatment for both conditions and almost 56% receive no treatment at all.[267] As seen in Table 4 in Appendix A, 99,408 Medi-Cal beneficiaries have a co-occurring mental health/SUD diagnosis as evidenced by a diagnosis on an encounter. This represents 17.6% of all Medi-Cal beneficiaries with behavioral health claims in 2009. Integration of mental health and substance use at both the systems and services levels in California has been challenged by years of unequal and severely limited funding, a provider and practitioner workforce wary of working "across" the mental health and addictions systems, and the fact that addressing the treatment gap for Californians with co-occurring mental health and substance use disorders has not been a priority policy issue for DMH, DADP, DHCS or for many of the counties.[268] With populations known to have high rates of co-occurring conditions such as persons experiencing homelessness and the prison-release population expected to enroll in Medi-Cal in 2014, the need to more effectively serve individuals with co-occurring conditions becomes even more urgent.

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[265] National Academy of Sciences. (2006). *Improving the Quality of Health Care for Mental and Substance-Use Conditions: Quality Chasm Series.* Washington, DC: National Academies Press.
[266] Ibid.
[267] Substance Use and Mental Health Services Administration, Office of Applied Studies, National Survey on Drug Use and Health, 2008 and 2009.
[268] Little Hoover Commission. (2008). Addressing addiction: Improving & integrating California's substance use treatment system. Sacramento: Author.

While this chapter will primarily focus on the state of integration of physical health and behavioral health (both mental health and substance use) in California, it will also provide an assessment of the state of integration of mental health and substance use systems and services and to identify where promising examples of mental health and substance use integration exist in California.

Integration of care is a key component of the Affordable Care Act (ACA). There are multiple opportunities under the ACA focusing on better integrating and coordinating care including: the establishment the new Federal Coordinated Healthcare Office and the Center for Medicare and Medicaid Innovation, both of which are charged with improving integration for people who are dually eligible for Medicare and Medicaid; Section 2703 the new Medicaid state plan option to provide health homes for enrollees with chronic conditions; the $20 million in funding targeted for assisting communities with integration of primary care services into community-based behavioral health settings as part of the Prevention and Public Health Fund, as well as the provisions related to the establishment of Accountable Care Organizations. These provisions present the Medi-Cal program and/or providers opportunities to draw down additional federal monies to better serve some of the most vulnerable Medi-Cal enrollees. Therefore, understanding California's readiness to take advantage of these various opportunities is an important component of the 1115 special Terms and Conditions.

## 2. Specific questions to be addressed in this chapter

Our efforts focused on understanding the following issues as they relate to health integration:

3. What structural, financing, practice, and/or regulatory issues promote care integration or conversely make integration of care challenging?
4. What best practice models exist for integration of care across physical health, mental health and substance use and what lessons learned can be applied as California considers various options available under health reform to promote better integration of care?

## 3. Relationship to other sections of the Assessment and Plan

This aspect of the assessment does not stand in isolation. Analysis of utilization patterns highlight areas where opportunities for better care coordination might exist. Penetration rate analyses can help target particular populations who might benefit from an integrated care coordination approach. Given the high co-occurrence of mental health, substance use, and physical health problems, the prevalence data provide a starting point for understanding the scope of the issue and can assist in planning efforts at both the county and state levels. The earlier section on provider capacity and workforce indicates a need for more

efficient use of the limited pool of available mental health and substance use providers and practitioners, and integration of physical health, mental health and substance use is one strategy for making better use of these scarce human resources. It also highlighted, as will this section, areas where more training across various disciplines is needed to achieve patient-centered integrated care. Another key to facilitating coordinated care within and across the various settings, providers, and entities where care is provided is health information technology. Effective use of HIT can often help overcome some of the barriers to successful integration of care such as physical space and distance issues. This section, as well as the later section on the status of behavioral health HIT in California, provides an analysis of the areas where HIT issues impact California's health integration efforts.

Just as the various components of the assessment are inter-related, the analyses of provider and workforce issues are directly connected to the required Service System Plan. Understanding the status of health integration in California will help in designing a plan going forward, one that will identify priority issues that can help California achieve the promise of integrated care.

## B. METHODOLOGY

Our approach to assessing the needs and gaps related to integration of physical health, mental health, and substance use in California involved both quantitative and qualitative approaches. Qualitative strategies included reviews of numerous reports and publicly available documents focusing on the state of integration of care, as well as interviews with key informants possessing specific knowledge about best practices and lessons learned from the various health integration projects that have occurred over the past several years. We also interviewed consumers, state and county officials, and providers to gather multiple perspectives on the issue.

The following activities were conducted as part of this health integration analysis:

- Published reports related to national and California specific health integration activities were reviewed and analyzed for key themes including selected county specialty mental health plan External Quality Review Organization reports.
- Interviews were conducted with key informants about the lessons learned from various health integration projects in California. Key informant interviews also focused on understanding the various structural, financial, and regulatory issues that impede or promote integration.

## C. REVIEW OF THE STATE OF THE ART IN HEALTH CARE INTEGRATION

### 1. Health integration models

A variety of models and evidence-based practice treatment approaches have been used successfully to integrate care including:

- The IMPACT model[269] and the DIAMOND model[270] both of which are collaborative team-based treatment approaches designed to help people struggling with depression in primary care settings. The IMPACT model has been used successfully in over 30 states including California and has been adapted for use with other mental health diagnoses commonly seen in primary care settings.
- Screening, Brief Intervention, and Referral to Treatment (SBIRT)[271] which has been used with great success in physical health care settings such as emergency departments and primary care offices to help identify people with substance use issues and connect them with appropriate treatment.
- Integrated Treatment for Co-Occurring Disorders[272,273]eliminates the use of two different treatment providers (one for MH and one for SU) in meeting the needs of a single individual by enhancing the capability of a treatment team or single clinician in providing care to persons with co-occurring mental health and substance use disorders.
- The Cherokee Health Systems[274] model which embeds a behavioral health consultant in a primary care setting while also utilizing consultation time from a psychiatrist.
- The Four Quadrant Model proposed by The National Council for Community Behavioral Healthcare[275] recognizes the need for integration of care across the range of provider settings, what is termed "bi-directional" care, where primary care services are integrated into mental health and substance use settings and where mental health and substance use services are integrated into primary care settings. It also acknowledges the variation in complexity and severity of both physical and mental health and substance use problems across the population.

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[269] Information and materials about the IMPACT model can be found at: *http://impact-uw.org/*
[270] Information and materials about the DIAMOND model can be found at: *http://www.icsi.org/health_care_redesign_/diamond_35953/*
[271] Babor, T.F. (2007). Screening, Intervention, and Referral to Treatment: Toward a public health approach to the management of substance use. *Substance Use*, 28(3), 7-30.
[272] Integreated Treatment for Co-Occurring Disorders in the past has been referred to as Integrated Dual Disorder Treatment (IDDT).
[273] Minkoff, K. (1989). An integrated treatment model for dual diagnosis of psychosis and addiction. *Hospital and Community Psychiatry*. Vol 40 (10). 1031-1036.
[274] Information and materials about the Cherokee model can be found at: *http://www.cherokeehealth.com/*
[275] Maur, B. (2009, April). *Behavioral health-Primary Care Integration and the Patient-Centered Healthcare Home*. Washington, D.C.: National Council for Community Behavioral Healthcare.

- Wagner's Chronic Care Model[276] offers a framework that can be used to guide clinical practice, systems, community, and individual patient changes that are required to support effective treatment of chronic conditions, including people with mental health and substance use disorders.
- The Strosahl model which integrates behavioral health consultants into primary care settings. This model has been utilized by several California providers involved in the various health integration projects described below.

To work effectively the treatment models described above requires training for the workforce, quality monitoring and improvement activities, a developed health information technology infrastructure that allows for the collection and sharing of data, financing mechanisms that support integrated care, and collaboration across providers, state and county agencies, managed care entities, and other funding sources. The California health integration models described below demonstrate some of these features, but also demonstrate the many barriers to full scale implementation.

## 2. Review of California health integration projects

### *a) Frequent Users of Health Services Initiative (FUHSI)*

The Frequent Users of Health Services Initiative (FUSHI), jointly funded by the California Endowment and the California Healthcare Foundation, [277] focused on the design and development of models that promoted coordination of care as a way to decrease inappropriate utilization of emergency departments and inpatient settings. FUHSI projects testing different models were implemented in six counties: Alameda, Los Angeles, Sacramento, Santa Clara, Santa Cruz, and Tulare and served over a thousand people. Sites of service included emergency departments and community-based organizations.

While enrollment criteria varied from county to county, the typical individual served by one of these projects was an adult with a serious mental illness and/or substance use disorder, who was also experiencing homelessness, was uninsured or underinsured, and was a frequent user of the emergency department. It was also common for persons served by FUHSI projects to have a chronic physical health condition such as AIDS, diabetes, cardiovascular disease, asthma, or liver disease.

[276] Wagner, E.H. (1998). Chronic disease management: What will it take to improve care for chronic illness? *Effective Clinical Practice*, Vol 1. 2-4.
[277] Linkins, K.W., Brya, JJ., Chandler, D.W. (2008). Frequent Users of Health Services Initiative: Final Evaluation Report. Prepared for The California Endowment and the California HealthCare Foundation.

Intervention approaches also varied but all had a focus on case management and care coordination. Some projects also involved the direct provision of services including illness management, transportation assistance, accompanying clients to appointments, crisis management, and peer support.

As a result of this initiative, more people became better connected with permanent supportive housing or other shelter or housing arrangement. It also helped to assist many people to enroll in Medi-Cal and/or access SSI benefits. Improved connections with ongoing primary care, mental health, and substance use treatment services were also accomplished for many enrollees (though provider availability and service capacity limitations, particularly for substance use treatment, hindered better outcomes on this measure). Statistically significant decreases in emergency department visits and inpatient admissions as well as costs were documented. Improved collaboration among community providers, systems, and other stakeholders was another positive result of the FUHSI project.

Overall, the project shed light on several important policy issues for the Medi-Cal program including:[278]

- The lack of availability of substance use treatment in the state was identified as a contributing factor to the problem of emergency department overutilization. The dearth of beds available for medical detoxification, especially for the uninsured, was identified as a particular driver of ED utilization.
- People without serious mental illness in need of mental health treatment have limited treatment options available to them.
- Volume based payments (fee-for-service) to ED providers contribute to the problem of inappropriate ED utilization.
- There is limited access to psychiatric medication and psychiatric consultation services for persons experiencing homelessness, suggesting the need for creative solutions to address this problem.
- Inclusion of peer support into FUHSI models helped to promote client engagement in the project.
- Case management support that includes benefits facilitation (e.g., helping enroll people in Medi-Cal or SSI) is an important activity that can help the individual as well as providers by helping them decrease the amount spent on uncompensated care.
- Partnerships with Medi-Cal managed care organizations, housing agencies, legal services, county mental health and substance use departments, were all critical in promoting the success of the initiative.

[278] Ibid.

It is important to note here that the case management and care coordination activities conducted in support of these efforts were not reimbursed by Medi-Cal, but rather relied on foundation funding or other sources of support (e.g., in-kind support from a participating hospital). Sustaining this type of effort will require identification of a source of financing that is not reliant on grant funding alone.

### *b) Integrated Behavioral Health Project*

The Integrated Behavioral Health Project (IBHP) is a statewide initiative begun in 2006 that focuses on advancing the goal of integrating mental health, substance use and physical health services. IBHP originally started as a joint initiative of The California Endowment and the Tides Center. Currently the IBHP is a project of the Tides Center and its Community Clinics Initiative (CCI), funded by the California Mental Health Services Authority (CalMHSA) as part of its Statewide Stigma and Discrimination Reduction Initiative.

The IBHP has provided statewide leadership, training, and technical assistance on the issue of health integration since its inception. It has also awarded numerous grants to community clinics and primary care settings to facilitate their efforts to integrate care. The initial grants (sometimes referred to as Phase 1) were awarded to seven primary care clinics and two clinic consortia. The Phase 1 grantees were:

- Open Door Community Health Centers, Arcata
- Mendocino Community Health Clinic, Ukiah
- Sierra Family Medical Clinic, Nevada City
- Golden Valley Health Center, Merced
- Family Healthcare Network, Visalia
- SACHS—Norton Clinic, San Bernardino
- Family Health Centers of San Diego
- Northern Sierra Rural Health Network, Nevada City
- Council of Community Clinics, San Diego

Similar to the FUHSI project, the integration model, staffing, infrastructure support, services provided and other structural factors varied from site to site. The individuals served through these sites had a range of mental health diagnoses such as: schizophrenia, schizoaffective, bi-polar, PTSD, major depression, eating disorders, and autism. Many people served by the clinics also had substance use issues including

those diagnosed with substance use or dependence.[279] Components of integration observed at the sites included: co-location, collaborative team-based approaches to care, integrated case conferencing, shared medical records, warm hand-offs, leadership support, universal screening, and joint trainings. Mental health and substance use services offered at these primary care sites included: linkage to community services and benefits, referrals to specialty mental health and substance use treatment, counseling, psychiatry, group therapy, life-style management counseling, suboxone treatment, and pain and illness management. Mental health and substance use services provided at the clinics were reimbursed by a combination of Medi-Cal, county MHSA funds, and grant dollars.

Results of an evaluation of the initial round of IBHP projects were positive. Patient satisfaction was endorsed as universally high; improvements in health and dysfunction scores as measured by the Duke Health Profile were noted; and statistically significant improvements in patient depression were observed.[280] In addition to the positive results for patients, another valuable contribution of these initial integration projects were the lessons learned and specific implementation challenges encountered by the clinics that can be used to inform California's efforts to scale-up integration projects. These implementation challenges included:[281]

- Restrictions on same-day billing for physical health and behavioral health services;
- Limited availability of substance use treatment services in the community to refer patients to for more intensive treatments;
- Lack of integrated HIT systems;
- Need for ongoing training and technical assistance for personnel in collaborative integrated approaches; and
- Lack of reimbursement for case management services.

The IBHP has continued to support health integration activities through its ongoing grant-making activities, trainings, technical assistance and statewide leadership on the issue. Most recently grants were awarded to seven primary care clinics to support their individual efforts to promote health integration.

### *c) County Medical Services Plan Behavioral Health Pilot Project*

In 2008, the County Medical Services Program (CMSP) undertook a three-year pilot project (March 2008-February 2011) designed to improve access to mental health and substance use services for CMSP

[279] Brya, J.J. & Linkins, K.W. (2010). Integrated Behavioral Health Program Case Studies. Desert Vista Consulting.
[280] Tides Center (2009). Integrated Behavioral Health Project: Phase 1 Summative Report. San Francisco: Author.
[281] Brya, J.J. & Linkins, K.W. (2010). Integrated Behavioral Health Program Case Studies. Desert Vista Consulting.

members through integration with primary care.[282] Fourteen grantees were selected to participate in the pilot, covering 15 of the 34 CMSP counties, which are predominately rural. The grantees were all primary care providers (or provider groups) that established a Memorandum of Understanding (MOU) with their County Mental Health Department and/or Substance Use Department in order to facilitate access to mental health and substance use services.

To support integration efforts, the CMSP made several modifications to the benefits, billing rules, and qualified practitioners such as:

- Allowing same day billing;
- Permitting psychologists, licensed clinical social workers, marriage and family therapists, and certified drug and alcohol counselors to bill the CMSP;[283] and
- Adding outpatient assessment and counseling visits for mental health and substance use treatment to the benefit array.[284]

No specific model of integration was required of the pilot sites, and similar to the other pilot projects occurring in the state, practices varied from site to site. Practices occurring at the sites designed to facilitate coordination of primary and mental health and substance use care included: warm hand-offs, co-location, staff trainings on integrated care, and creation of venues for sharing of information.

The CMSP pilot served a total of 2,339 participants between 2008 and October 2010. Individuals served by this pilot had moderate to serious mental health and/or substance use problems in addition to physical health issues. Participants were also reported as experiencing numerous psychosocial and environmental stressors such as unstable housing, poverty, family stressors, and unemployment.
The pilot was successful in achieving several important objectives. An evaluation of the CMSP pilot by the Lewin Group found the following:[285]

[282] The Lewin Group. (2011). Evaluation of the CMSP Behavioral Health Pilot Project: Final Report.
[283] The CMSP only allowed billing by psychiatrists or other physicians.
[284] The usual CMSP benefit allowed for: 1) services from psychiatrists and other physicians, 2) 10 days of inpatient mental health hospitalization per year 3) certain psychotropic medications, 4) 21-days of outpatient heroin treatment. The pilot added one mental health assessment, one substance use assessment, 10 individual or group mental health counseling sessions, two substance use sessions, and 20 group substance use counseling sessions to the behavioral health benefit.
[285] Ibid.

- Compared to a control group, medical and psychiatric hospitalization rates and number of bed days decreased for pilot participants, with a particularly substantial decrease in psychiatric hospitalizations for the pilot group.
- The pilot group experienced a decrease in emergency department (ED) utilization and had fewer ED visits than the control group.
- The most significant finding was that while per member per month costs for the pilot participants and control group members were similar, the pilot group increased their use of outpatient and primary care services and became less reliant on high-cost services such as inpatient and emergency department visits. As noted by the evaluators, "…the modest interventions implemented by the pilot grantees appeared to cause a dramatic redistribution of total costs for participants."[286]

Success with integration of care was more modest. As frequently noted in evaluations of integration projects, co-location of primary care and behavioral health services does not necessary lead to improved collaboration among providers. Collaboration and communication among primary care, mental health and substance use providers and county departments continued to be a challenge for some of the pilot sites.

Implementation challenges identified by this pilot mirror the findings identified earlier in this report. These included:

- The limited availability of mental health and substance use practitioners made accessing MH/SU care difficult for many individuals. This issue was compounded in rural areas. It should be noted that telemedicine was not reimbursable under this pilot project.
- Cost-sharing requirements were identified as a barrier to service use given the low incomes of the CMSP population.
- Case management activity was not covered under this project. Availability of this service could have led to improvements in collaboration and coordination between primary care and MH/SU providers and county departments.
- Frequent changes in eligibility status for this population, sometimes referred to as "churn," made continuity of care a challenge.
- The limited number of available outpatient sessions led some practitioners to extend treatment out over many months rather than dosing sessions based on patient need (e.g., weekly rather than

[286] Ibid.

monthly visits). This might be related to practitioner training which often places values on long-term therapeutic alliances and interventions which are not aligned with the brief, solution oriented therapies necessitated by the type of service limits in this pilot (which also have good evidence for their effectiveness).

The results of this project supports what many in the field know, that spending healthcare dollars for the treatment of mental health and substance use problems can lead to an overall savings in healthcare costs. This project also clearly reinforces the need for mental health and substance use treatment services for people who do not have severe mental illness and therefore would not be eligible for mental health services offered by the county specialty mental health plans.

### *d) Additional health integration projects occurring in California*

In addition to the projects described above there are numerous other integration projects occurring in the state. Notably, eight MH/SU sites in California were awarded SAMHSA Primary and Behavioral Health Care Integration grants. These grants are intended to help support the integration of primary care into behavioral health settings (this is different from many of the integration projects described above which integrate behavioral health into primary care). The grantees are:

### Table 91. SAMHSA Primary and Behavioral Health Care Integration Grantees

| Grantee | Date Awarded |
|---|---|
| **Mental Health Systems Inc, San Diego** | September 2009 |
| **Alameda County Behavioral Health Care Services** | September 2010 |
| **Asian Community Mental Health Services, Oakland** | September 2010 |
| **Glenn County Health Services Agency** | September 2010 |
| **San Mateo County Health Services** | September 2010 |
| **Tarzana Treatment Center** | September 2010 |
| **Catholic Charities of Santa Clara County** | September 2011 |
| **San Francisco Department of Public Health** | September 2011 |

Grantees are currently engaged in the following activities to promote integration of primary care into behavioral health settings:[287]

- Facilitation of screening and referral for primary care prevention and treatment needs;

[287] Information on SAMHSA integration projects retrieved from: *http://www.samhsa.gov/healthReform/healthHomes/index.aspx*

- Providing and/or ensuring that primary care screening, assessment, treatment and referral be provided in a community-based behavioral health agency;
- Developing and implementing a registry/tracking system to follow primary health care needs and outcomes;
- Offering prevention and wellness support services; and
- Establishing referral and follow-up processes for physical health care requiring specialized services beyond the primary care setting.

Other integration projects that are either ongoing or have recently ended in the state include:

- Two SAMHSA funded grants to implement SBIRT in Los Angeles and San Diego.[288]
- Two MHSA funded integration projects in San Diego County: the PEI Rural Integrated Behavioral Health & Primary Care Services (SmartCare) project and a MHSA Innovations funded project called ICARE.
- Projects focused on the creation of partnerships between county mental health and primary care/FQHCs have occurred (or are ongoing) in San Mateo, Shasta, Alameda, Humboldt, Nevada, and Kern.[289]

### *e) Integration projects related to the 1115 waiver*

Several provisions of the new 1115 Bridge to Reform Waiver create the potential and perhaps strengthened incentives for behavioral and physical health integration. For example, the mandatory enrollment of Seniors and Persons with Disabilities (SPDs) in the physical health plans will assure at least minimal access to mental health benefits. In addition, many of the SPDs being enrolled in health plans are either already receiving specialty mental health services are could qualify by reason of a mental health disability to receive these specialty services. This will create stronger imperatives to coordinate care and share patient information among the specialty MH plans and the physical health plans. In addition, the approximately 400,000 uninsured individuals being enrolled in LIHP between now and 2014 will also have access to a minimal mental health benefit.[290] Anecdotal information suggests that some county health and mental health departments are viewing LIHP enrollment as an opportunity to increase access to and coordination with specialty mental health services for some of the new enrollees. As will be

[288] The grant funding for these projects ended in 2010.
[289] Information obtained from the Integrated Behavioral Health Project webpage at: *http://ibhp.org/index.php?section=pages&cid=206*
[290] Anecdotal information suggests that only one or two of the LIHP Counties have included a substance use service benefit as well as a mental health benefit in their LIHP plans.

described below, in some counties the specialty mental health system is providing mental health resources to integrated treatment models developed under the waiver.

Quantitative Medi-Cal data reflecting the enrollment of SPDs in health plans and the enrollment of uninsured people in LIHP plans was not available to TAC/HSRI for this phase of the project. As new data becomes available it can be factored into the development of the system plan.

As noted in a recent report from the **Insure the Uninsured Project**, "The Waiver facilitates but does not require a connection between county health departments, mental health departments, hospitals and community clinics to work together…."[291] Qualitative information from several TAC/HSRI interviews and county site visits corroborates this statement. We heard about new efforts to collaborate and to coordinate care across physical health and mental health (and occasionally substance use) services. However, we also heard that there were many barriers to this type of collaboration and care integration, and that in many cases discussions of collaborative models and information sharing were in the very early stages.

In addition to the SPD and LIHP initiatives, the 1115 waiver also includes provisions for the DSRIP Program, a federal pay-for-performance initiative, offering an unprecedented opportunity for California's 21 public hospital systems to transform care delivery to be more integrated and organized, and to improve patient outcomes. There are four categories for which funding is available: 1) Infrastructure Development, 2) Innovation and Redesign, 3) Population-focused Improvements, and 4) Urgent Improvement in Care. Several county public hospitals have selected the Category 2 Project – Innovation and Redesign: Integrate Physical and Behavioral Health Care as part of their DSRIP plans. These are summarized below.[292]

- Los Angeles County: Mental health practice co-located within physical health settings, with County MH funding for mental health clinical components for health clinics and mobile teams, consumer self help services, and Level II services
- San Mateo County: Mobile primary care consultations; placement of nurse practitioners in behavioral health clinics; and allowing mental health clinics to function as the medical home for people with a primary MH diagnosis.
- Santa Clara: May place psychiatrists and other mental health providers in primary care clinics.

[291] Watson, S. & Klurfeld, A. *California's Mental Health System: Aligning California's Physical and Mental Health Services to Strengthen the State's Capacity for Federal Coverage Expansion* August 2011
[292] Information summarized from Watson and Klurfeld, 2011 *Ibid.* Pg 17

- Contra Costa: Building new health center in which multi-disciplinary teams work in close proximity; combining MH treatment, SUD treatment, and homeless services in one entity with one assessment and uniform case management.
- San Francisco: Integrating behaviorists into community health centers for consultations and direct services.
- Ventura: Co-locating primary and behavioral health care for adults and children; implementing IMPACT model[293] for prevention and early intervention.

### 3. Health homes for individuals with chronic conditions

Health care reform has brought with it the opportunity to remedy some of the problems that have resulted from poorly coordinated care for people with chronic conditions. Section 2703 of the ACA creates a new Medicaid state plan option: Health Homes for Individuals with Chronic Conditions. While the concept of a health home, sometimes referred to as a medical home, is not new—the American Academy of Pediatrics, began developing this concept in the late 1960s—health reform has brought renewed attention and resources to implement this model on a much broader scale. The health home is an approach to providing comprehensive coordinated healthcare services; it is not a location or a building.[294] Health homes are charged with serving as a health care "hub". In addition to providing care and taking responsibility for an individual's ongoing healthcare needs, a health home assists persons with chronic conditions including those with mental health and substance use disorders, navigate the complex health and social service systems. They perform a range of activities including:

- Developing a "person-centered" plan of care that serves as a roadmap for addressing the person's identified healthcare, social, and emotional service needs;
  Providing referral to specialty healthcare providers including mental health and substance use services;
- Promoting integration between primary care and other providers of health, social, and behavioral health services;
- Offering information about a range of health related topics;
- Facilitating access to support and recovery-oriented services (e.g., peer mentor services, AA, support groups, etc.);

[293] Los Angeles County MH is also reported to be implementing the IMPACT model.
[294] National Center for Medical Home Implementation. American Academy of Pediatrics. *http://www.medicalhomeinfo.org/*

- Ensuring transitions from one setting to another (e.g., from the hospital to home) are well-managed;
- Coordinating and promoting access to health promotion and prevention services (e.g., smoking cessation programs, nutrition classes, suicide prevention, substance use relapse prevention, etc.); and
- Navigating the long-term care system.

Health homes are exactly the type of integrated, coordinated approach to care that people with co-occurring physical, mental health and substance use disorders need. By improving communication amongst providers, health homes are intended to eliminate duplication of services and provision of unnecessary treatment(s). This reduces the risk of adverse events related to receipt of conflicting medical advice or medication interactions resulting from poorly coordinated care. Health homes are designed to take a planned, proactive approach to a person's care through the development of a patient-centered care plan. By preventing and treating problems before they become worse, health homes should reduce a person's need for costly treatment in acute care in hospitals and emergency departments. With a "whole-person" approach to treatment, health homes are responsible for ensuring that **all** of a person's physical and behavioral health-related needs are met. Ultimately, health homes are intended to improve the quality of an individual's interaction with the healthcare system.

While care coordination for people with mental illness or substance use disorders can be provided under other Medicaid authorities such as the 1915(c) home and community-based services (HCBS) waiver program, the 1915(i) HCBS state plan option, the Targeted Case Management (TCM) Option, and the Rehab Option, they are not integrated care coordination approaches. These approaches traditionally do not have the same holistic or "whole-person" orientation to care that is a fundamental component of the health home model. In addition, the health home model envisioned under the ACA improves upon the case management programs that states may currently offer under Targeted Case Management, the Rehab Option, or through managed care.

Provider participation standards for health homes are quite robust. These standards include having the capacity to utilize health information technology to improve communication, as well as having a quality management infrastructure that utilizes data to improve quality of care. The health home provider standards also specify use of provider practices that support individuals in their recovery. This recovery-oriented approach includes use of person-centered planning, collaboration and coordination with natural

helpers and community supports, a whole-person orientation to treatment, and explicit focus on coordination of physical and behavioral healthcare.

The health home option also allows states to extend the benefits of care coordination to individuals who do not qualify or meet eligibility criteria for an existing case management program under the Rehab Option or TCM. Given the challenges associated with developing a 1915(c) waiver for individuals with mental illness, the health home is a way to offer high quality care coordination services to this population while receiving an enhanced federal match in order to do so.

If DHCS elects to pursue a Health Home state plan amendment, TAC and HSRI can factor it into the access and integration strategies to be considered as part of the Service System Plan.

### 4. Summary of existing projects

As the projects described above indicate, there is a wealth of experience with health integration throughout California. These innovative projects have resulted in improved functioning, quality of life, and overall health for many Californians while also reducing Medi-Cal costs. However these projects have also shown that significant workforce, financial, regulatory, information technology, and structural barriers exist that have constrained broader adoption of health integration projects across the state. In addition, many of the projects are too early in the planning and implementation stages to report on either positive results or barriers to implementation.

## D. Results of the Qualitative Analysis

As can be seen from the state of the art and the existing project information presented above, true integration of physical health and behavioral health is emerging, but is far from widespread throughout either the United States or California. California has implemented model programs, but these currently cover only a small fraction of the Medi-Cal population (both now and after 2014).

As with the rest of the United States, California is hindered in health integration efforts by structural, financial and informational differences. These differences have become embedded in the cultures and operations of the different systems, are reflected in provider and practitioner training and practice, and are embodied in separate managing/purchasing agencies and funding streams. For these reasons, achieving true integration of behavioral health and physical health, or even mental health and substance use services, will require major efforts to change organizational cultures and operations, and cannot be accomplished solely through changes in clinical protocols or the co-location of services.

TAC/HSRI conducted numerous interviews, focus group discussions and site visits at the state and county levels during the information collection phase of this project. We made an attempt to collect information about health and MH/SUD integration in almost all of these events. This substantial body of qualitative information provides some insights into state and local strategies that could support expansion of integration efforts beyond the special projects described above. The major points of this qualitative information are summarized below.

## 1. Structural and organizational barriers

Up until recently, the state agencies with overall responsibility for health, mental health and substance use services have been organizationally separate within state government. The current re-organization of these departments, with the administration of Drug Medi-Cal and specialty mental health plans becoming centralized within DHCS, provides new opportunities to implement uniform purchasing strategies, system integration, and performance oversight within the overall Medi-Cal program. However, there are remaining structural issues to be resolved related to the administration of federal block grant (MHBG and SAPT) funds and perhaps MHSA funds. For the Medi-Cal health and specialty health plans to be most effective, they must rely on coordinated funding and management strategies with the non-Medi-Cal funding sources. Many Medi-Cal participants, particularly those with multiple conditions, will need non-Medi-Cal resources in the community to avoid more expensive Medi-Cal funded hospitalization or institutional services.

Although a degree of structural integration of health, mental health and substance use services is being implemented at the state level, there remains considerable structural separation of these organizations and functions at the county level. The presence at the county level of three separate types of Medi-Cal plans: physical health, mental health, and Drug Medi-Cal reinforces the cultural and organizational separation of these systems within the counties. There is a requirement for specialty mental health plans and physical health plans to have memoranda of agreement governing mutual referrals and coordinating care for people served by both types of health plans. However, in the interviews and site visits most respondents stated that these agreements do not result in routine and effective integration or coordination of care. Representatives of both specialty health plans and physical health plans expressed frustration with the difficulty of sharing information, accessing services, and coordinating care across the boundaries of the two systems.

A few counties are reported to be using MHSA funds to implement integrated services for people with co-occurring mental health and substance use disorders, but these efforts are not systematic, and there is no

current effort to implement these integrated models on a statewide basis. Many respondents reported that, even when mental health and substance use administrative responsibilities were within the same county office, there was little actual coordination between the programs. In addition, with the exception of the six counties with single county health plans (County Organized Health Systems), most Medi-Cal beneficiaries are enrolled in health plans that are not county operated, which increases the number of boundaries across which health and behavioral health services must be coordinated, and potentially decreases the tools available at the county level to effectuate the desired integration.

The recent realignment process concentrates resources and increases the responsibility of counties to manage the mental health and substance use service systems for both adults and children. In some ways, this realignment reduces the leverage available at the state level to develop and oversee uniform system approaches to integrating care at the individual level and integrating service development, management and performance assessment strategies at the system level. As has been noted throughout this report, there is considerable variability among the counties with regard to the implementation of their health and behavioral health Medi-Cal plans and other mental health and substance use services. In addition, 19 counties do not currently participate in the Drug Medi-Cal program. In combination with realignment, this structural and operational variability means that integration strategies will have to be designed and implemented primarily at the county level.

Chapter IX regarding provider capacity and workforce issues describes considerable bifurcation between the mental health and substance use service provider systems. As reported in that Chapter, only 428 providers (10.56% of the total of 4,054 behavioral health providers identified in the Medi-Cal claims) were identified in the Medi-Cal data as having provided both mental health and substance use services. That chapter also describes considerable separation among mental health and substance use service practitioners. Qualitative information for the interviews and site visits supports the conclusion that (a) mental health and substance use service provider coordination and information sharing with physical health providers is rare; and (b) coordination efforts among substance use service and mental health providers are sporadic and not supported by policy directives or performance expectations at the county level. Thus, even if structural integration is accomplished at the state and county level, there are many provider and practitioner traditions and clinical and business models that must be revised to foster increased integration of service delivery and coordinated utilization of system resources.

## 2. Financial barriers

The structural separation of the specialty mental health and Drug Medi-Cal plans from the physical health plans noted above results in separation of financing streams as well. In addition, the fact that counties

certify public expenditures for the specialty health plans separate from the other health plans creates competing incentives for managing access to care. For example, some counties reported the need to carefully manage access to specialty mental health services, which could effectively limit the degree of access physical health plan members (including newly enrolled SPDs) have to specialty mental health services. A few counties reported efforts to refer "medication only" consumers from the specialty mental health plans to the physical health plans, in order to free up specialty plan resources. One unintended consequence of the separate financing streams within Medi-Cal is a de facto incentive to manage scarce resources by moving people from one type of plan to another.

From a national perspective, it is unusual to have separate specialty plans (carve-outs) for mental health and substance use services. In most states, if substance use services are included as benefits in managed care plans, they are incorporated with the mental health benefits in one plan. California's separate mental health and substance use service plans reflect but also may have exacerbated the inherent and cultural separation between these systems.

As with all state Medicaid plans as well as other state funding resources, there are a number of specific financing issues in California that unintentionally militate against effective integration at the point of services as well as in local systems of care. Several specific issues were identified in the literature review and by respondents in the interviews and site visits. These include:

- California is one of 14 states that do not cover same day physical health and behavioral health visits. This effectively dis-incentivizes multi-disciplinary or co-located primary care and behavioral health clinicians from carrying out integrated care approaches with Medi-Cal beneficiaries in a common location or shared encounter.
- California Medi-Cal does not currently allow billing for SBIRT. SBIRT is an evidence based practice known to increase screening for co-occurring substance use and to also increase engagement in integrated treatment of physical and behavioral health issues.
- There are no mechanisms currently in Medi-Cal to reimburse for psychiatric consultation to primary care physicians.
- Many respondents noted that there are no provisions in Medi-Cal to pay for the act of coordinating care: the time taken by clinicians and/or care coordinators to meet together (either with or without the consumer present) to develop and monitor integrated plans of care.
- California currently limits use of Health and Behavioral Health Assessment/Intervention (HBAI) codes for Medi-Cal billing to single adults. Family HBAI codes are not currently activated.

### 3. Informational barriers

Chapter XI on health information technology presents substantial information on the barriers to sharing information between and among various health and behavioral health plans, providers and practitioners. Chapter IX on provider capacity and workforce issues also notes differences in the collection, use and interpretation of health information among providers and practitioners. The literature review and interviews related to this chapter on health integration confirmed the findings of those chapters: that information exchange across the boundaries of physical health, mental health and substance use services is constrained at the state, county, health plan, provider, and practitioner levels. The inability to smoothly and efficiently share information across these boundaries was reported by many respondents, including consumers and families, to be a major barrier to accessing effective care.

Respondents emphasized that the issues are greater than simply developing mechanisms for information to be shared across systems. Many pointed out that there are major differences in data systems, data dictionaries, service definitions, and unique consumer identifying algorithms that exacerbate common usage or sharing of information. There is also a lack of system level (state, county, and health plan) collection and interpretation of service access, utilization, outcome and performance data. At this point there are not data-based mechanisms for holding clinicians, providers or health plans accountable for effectively integrating and coordinating care. Nor is there a current basis for rewarding these parties for achieving positive outcomes and cost savings as a result of their efforts to integrate care.

## E. CONCLUSION

The state of the art in integrating physical health with behavioral health is advancing rapidly throughout the United States. The state of the art with regard to integrated dual diagnosis treatment for people with co-occurring mental and substance use disorders is well known and supported by the literature. California has embarked on a number of strategies and demonstration programs to increase the coordination of care across physical and behavioral health and for people with co-occurring disorders. Some of these projects have been completed and evaluated, and have shown great promise in both improving consumer outcomes and reducing costs.

Nonetheless, as with the rest of the United States, California has not yet implemented health integration and dual diagnosis treatment at scale. Most Medi-Cal participants in California still do not have access to state of the art integrated treatment. Many structural, financial and informational barriers to effective integration have been identified in California, and the unique configuration and diversity of county level

physical and specialty health plans and related funding streams necessitates creative planning and problem-solving within each county as well as at the state level.

It should be noted that integration models for children and youth are different and more complex than those for adults discussed above. Although children and youth do not suffer rates of co-morbidity or co-occurring diagnoses as high as adults, there is a substantive need to increase the mental health competencies of pediatric and general health care for youth, while at the same time assuring that youth with mental illness have regular access to primary health care. More importantly, youth with serious emotional disturbance and their families almost always rely on coordination among schools, juvenile justice, child welfare and other community systems and funding streams in order to remain in the community. Because of the very high costs of out of home and out of state treatment, Medi-Cal has a strong incentive to see that there is financial coverage and proper incentives for multi-system care coordination.

Also, as was noted in at least two of the adult health integration projects described above, access to housing, employment and other community resources are key determinants of success for adults with multiple disabilities. The need to coordinate access to non-Medi-Cal service systems is one reason that coordinated system and fiscal planning for the mental health and substance use block grants and other non-Medi-Cal resources is so crucial to the Medi-Cal program.

California DHCS may consider developing a statewide Health Home strategy for Medi-Cal participants. If DHCS does purse this opportunity, it has the potential to overcome many of the issues and barriers identified in this Chapter. However, many local mental health and substance use providers do not yet meet criteria for participating in Heath Homes. In addition, many of the current barriers to health information sharing among plans and providers remain to be resolved. Nonetheless, the Health Home initiative is a positive and effective way to increase integration and also to create incentives for all parties to participate in health integration and care coordination activities.

The state level reorganization of the Departments of Mental Health and Alcohol and Drug Programs, including integration of these agencies' Medi-Cal functions into DHCS, promises to increase the uniformity and integration of policy and financing across these programs. It remains to be seen what additional interagency and state-county mechanisms will need to be put in place to increase the coordination of financing and policy between Medi-Cal and the other funding streams, particularly at the county level.

# XI. BEHAVIORAL HEALTH INFORMATION TECHNOLOGY

## A. MOTIVATION FOR THIS PORTION OF THE NEEDS ASSESSMENT

### 1. Relation to 1115 Terms and Conditions

A fully developed health information technology (HIT) infrastructure is a critical component of health care reform and a healthy economy. This is evidenced by the HIT specific investments contained in the American Recovery and Reinvestment Act (ARRA) including the $46.8 billion Health Information Technology for Economic and Clinical Health (HITECH) Act, as well as the numerous HIT related provisions found within the Affordable Care Act (ACA).

SAMHSA has also recognized HIT as a core infrastructure component of health reform, and has specifically highlighted HIT as necessary to the development of a "good and modern" addictions and mental health service system. SAMHSA's describes its vision for good and modern HIT system as:

> *"…a modern health system should include a structure in which all holistic outcomes, measures and indicators of health are collected, stored and shared with the individual and all of those providers who are associated with care of the individual. To that end, interoperable, integrated electronic health records will be necessary, as will community-wide indicators of mental health and substance use disorders."*[295]

SAMHSA has acknowledged the challenges inherent in achieving this vision, given that many mental health and substance use providers often have limited or antiquated HIT systems, and have scarce resources to devote to upgrading or modernizing their systems.[296] Further, SAMHSA has recognized that advancing the adoption of HIT among mental health and substance use providers is critical to promoting integration of mental health, substance use, and physical health care. Given this reality, SAMHSA has included HIT as one of its eight Strategic Initiatives, thereby increasing the visibility and resources dedicated to this issue within SAMHSA.

Recognizing the promise that developing the HIT infrastructure held for creating efficiencies in care delivery and improving quality of care, California has long been in the forefront of supporting the

[295] Substance Use and Mental Health Services Administration (2010). Description of a Modern Addictions and Mental Health Service System (draft). Retrieved on December 20, 2011 from: *http://www.samhsa.gov/healthreform/docs/AddictionMHSystemBrief.pdf*
*http://www.samhsa.gov/healthreform/docs/AddictionMHSystemBrief.pdf*
[296] Ibid.

development of HIT, including Health Information Exchanges (HIEs), Electronic Health Records (EHRs), and tele-health. However, HIT development in California is not without its challenges, which include the sheer size of the state, both in area and population, the decentralized county-based structure of publicly funded healthcare programs, and the geographic diversity of the 58 counties. As a result of these factors, development of the HIT infrastructure in the state is highly complex and variegated.

As California and its counties grapple with the challenge of ensuring health care coverage for more of its population while facing historic budget shortfalls, HIT offers both opportunities and challenges. This is particularly true in the areas of mental health and substance use. The opportunity to improve coordination of care for people with mental health, substance use, and/or physical health care issues holds great promise as HIT efforts develop. However, adoption of EHRs and development of an HIT infrastructure among mental health and substance use providers has lagged behind those of their physical health care counterparts due in part to differences in funding and issues related to confidentiality of client information. The limited connection between behavioral health and general healthcare and the bifurcation of the mental health and substance use disorder treatment systems, adds additional complexity to the mix.

This chapter relates to the requirement that the Behavioral Health Services Assessment include "information on information system infrastructure." By specifying a focus on HIT issues for mental health and substance use providers as part of the Needs Assessment, CMS recognized that HIT development among mental health and substance use providers would be an important aspect of California's implementation of health care reform.

## 2. Specific questions addressed in this chapter

While the topic of health information technology is expansive, the purpose of this chapter is specific to mental health and substance use providers' access to and use of technology, and the implications for the health care delivery system. Specifically, questions that will be addressed include:

- What is the current status of California's mental health and substance use health information technology and exchange infrastructure?

- What has occurred in the development and use of health electronic health records and the interoperability of different systems, the use of telemedicine and e-prescribing to support care delivery?

- What are the implications for the health care delivery system including integration of care and delivery of high quality and cost effective care; and implications specific to the mental health and substance use system including workforce, privacy/confidentiality laws, vulnerable populations, and support of recovery-oriented care?

### 3. Relationship to other sections of the Assessment and Plan

This examination of Health Information Technology is informed by and impacts several areas of the Needs Assessment which are included in this report; and illustrates strategies for inclusion in the subsequent behavioral health system plan. Within this chapter on HIT and the former chapter on health care integration, the report provides context for the importance of addressing behavioral health access to HIT as an essential element to successfully achieving integration. Chapter IX, which examines the mental health and substance use provider capacity and workforce issues, indicates that the capacity of the provider network and its available workforce are challenged to meet the demand for services. Enhancements in technology could be used to mitigate some of these capacity and access issues. For example, greater use of telemedicine in rural areas could be developed to help improve access to psychiatry. In addition, the successful use of technology depends upon a workforce skilled in the use of technology. The former chapter on special populations also provided context for HIT, particularly for its potential to reduce stigma in seeking treatment and decreasing health care disparities. Finally, the ability to continually monitor and improve the mental health and addiction system is dependent upon data; particularly at the practice/provider level where decisions about care are made. Without the capacity to have access to technology, this goal is not achievable.

## B. METHODOLOGY

The analyses of Health Information Technology consisted of the following approaches:

- Review of published reports related to best practices occurring nationwide and in California related to Health Information Technology, Health Information Exchange, electronic health records, and use of technology to support care delivery (i.e., tele-health)

- Interviews with key informants about the current status of implementation of HIT in the physical health field and the mental health and substance use field; as well as the implications of confidentiality rules and laws for mental health and substance use that impact implementation of HIT.

TAC/HSRI Team intended to conduct a quantitative analysis using claims and encounter data to better understand the extent to which tele-health is being used in the provision of mental health and substance use services. However these data were not available to us at the time of this report. Therefore, the information contained in this chapter is limited to qualitative analyses.

## C. LITERATURE REVIEW

HIT is a multi-faceted concept which includes not only electronic health records (EHRs), but also electronic prescribing and lab order entry, chronic disease management systems, telemedicine, decision support systems, patient access by means of personal health records(PHRs), e-mail messaging between providers and patients as well as data warehouses to support quality and efficiency. Underlying these processes is the capacity for data sharing (interoperability) among health care providers and organizations. As discussed by Brailer in numerous presentations, articles and reports on the issue of HIT, it also has the potential to serve broader and longer-range functions such as supporting public policy (e.g. disparities reduction) and public health (e.g. research and surveillance data).[297,] This section will describe the various aspects of HIT and current initiatives and efforts occurring across the nation and in California.

### 1. National context

#### *a) Health Information Technology and Information Exchange*

HIT provides the overall framework to describe the comprehensive management and secure exchange of health information electronically among providers, pharmacies, insurers, States, Territories, Tribes, communities, consumers, and other entities. It also provides the context from which the EHR evolves and drives discussion about privacy and confidentiality. As mentioned above, HIT is a broad construct that extends beyond EHR and includes telemedicine and other technologies. HIT can improve health care quality, prevent medical errors, increase administrative efficiencies, decrease paperwork, and improve patient health. It also has the potential to enhance medical decision-making, promote patient monitoring, and involve consumers in their own care. HIT in general and EHRs specifically will allow behavioral health practitioners to engage the individual receiving services without waiting for the exchange of records and paperwork and without requiring unnecessary or repetitive tests and procedures. Other medical and social factors occur simultaneously with and impact behavioral health. Thus, access to a patient's medical history, medication history, and other information is essential to identifying potential

[297] Brailer,D. (2010). Guiding The Health Information Technology Agenda. *Health Affairs.*

medication interactions, factors that may affect the effectiveness of treatment, and/or other potentially harmful consequences to a course of treatment.

Health information technology is an essential tool for effective health care delivery and is being studied as a means to improve treatment for mental health problems. Telephonic, e-mail, and online computer technologies can deliver education and engage individuals in symptom management and self-care.[298] Researchers are testing the utility of interactive voice-response telephone systems and text messaging to monitor symptoms and side effects for individuals under treatment for mental health problems in primary care.[299] Online "therapeutic workbooks" and self-management training tools for depression have been developed,[300] and therapies, such as Cognitive Behavioral Therapy, have been computerized.[301] Finally, computer technologies can deliver training in mental health treatment and communication skills to primary care staff.[302]

Health information exchanges (HIE's) provide the ability to exchange clinical information electronically across different information systems while maintaining the meaning of the information being exchanged. HIE systems support the goals of care coordination and fiscal efficiencies by minimizing time delays in the exchange of information, and reducing paper/faxing dependencies, duplication of tests, mailing of medical records and phone communication for referrals and test results.

HIE have historically been initiated with grant funding and often have not been sustained past the grant period. Nationally, there is wide variation as to the inclusion of mental health and substance use providers in HIE's. A 2011 survey by the eHealth initiative found that the number of HIEs is continuing to expand and that there is a "small but critical mass of sustainable organizations." The eHealth initiative identified 255 active HIEs in the country; with an increased number of behavioral or mental health providers report providing and viewing more data through exchanges.[303]

Behavioral health providers nationally have reported limited awareness of and belief in the importance of participating in a Regional Health Information Organization (RHIO) or a Health Information Exchange

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[298] Gerstle R.S. (2004). E-mail communication between pediatricians and their patients. *Pediatrics*.
[299] Gardner W,, Kelleher K.J., Pajer, K.A. (2002). Multidimensional adaptive testing for mental health problems in primary care. *Medical Care*.
[300] Gerstle R.S. (2004). E-mail communication between pediatricians and their patients. *Pediatrics*.
[301] National Institute for Health and Clinical Excellence. Computerised cognitive behavioural therapy for depression and anxiety. Retrieved on January 5, 2011 from: *http://www.nice.org.uk/guidance/index.jsp?action=byID&r=true&o=11568*
[302] Kemper KJ, Foy JM, Wissow LS, et al. (2008). Enhancing communication skills for pediatric visits through online training using video demonstrations. *BMC Medical Education*.
[303] eHealth Initiative (2011). Report on Health Information Exchange: The Changing Landscape.

(HIE). Similarly, awareness and support for the importance of software certification such as CCHIT (Certification Commission for Healthcare Information Technology) was also limited. [304] It is critical that behavioral health providers engage in these efforts. Without the involvement of mental health and substance use providers in the formative stages of HIE development, it may prove more difficult in the coming years to easily modify these systems to include behavioral health providers and information; particularly given the specific confidentiality and privacy rules that apply to behavioral health information.

In addition to awareness of the importance of HIT, there is evidence that many mental health and substance use providers do not use or have access to the same types of technology more frequently used by other providers in the health care system. Several recent reports have highlighted the growing gap between physical health and behavioral health provider's regarding use of technology in their treatment practice. Recent data available on the average information technology (IT) spending in behavioral health /human services organizations indicates that IT represents just 1.8% of the total operating budgets. This is in contrast to the 3.5% of the total operating budgets spent on IT by general health care providers. In terms of personnel, IT staffing represents approximately 1.3% of total FTEs in behavioral health/human services but 4.3% of the total FTE in general health care.[305] As another example, one survey found that of 175 substance use treatment programs surveyed, 20 percent had no information systems, e-mail, or even voicemail.[306]

### *b) Electronic Health Records, Tele-health and E-Prescribing*

An *Electronic Health Record (EHR)* is an electronic version of a medical history that is maintained over time. It includes all care provided by a specific provider including demographics, assessment, treatment plan, progress notes, medications, past medical history, and tests. The EHR automates access to information; can streamline the clinician's workflow, provide decision support, quality management, and outcomes reporting.

While limited information is available on EHR use specific to behavioral health providers nationally, fewer than half of behavioral health providers possess fully implemented clinical electronic record

[304] eHealth Initiative (2011). Report on Health Information Exchange: The Changing Landscape.
[305] Centerstone Research Institute. (2009). Behavioral Health/Human Services Information Systems survey. National Council for Community Behavioral Health Care.
[306] McLellan, A. T., Carise, D., & Kleber, H. D. (2003). Can the national addiction treatment infrastructure support the public's demand for quality care? *Journal of Substance Use Treatment*.

systems.[307] This contrasts with national data showing 57% of health care providers using an EHR.[308] Additionally, issues of confidentiality and stigma influence behavioral health providers' perceptions of HIT. A study of 56 mental health clinicians in an academic medical center revealed that their concerns about privacy and data security were significant and contributed to reluctance to adopt electronic health records. [309]

Tele-health can benefit both the consumer and provider through efficiency and increased access. Using interactive video and audio, consumers in underserved areas can access services they otherwise would not have access to, especially for services that are in high demand such as psychiatry. Tele-health can also be a strategy to engage persons with mental health and substance use issues to access online educational and psychosocial support services.

According to the American Telemedicine Association, 23 states have some form of Medicaid coverage and reimbursement for "tele-mental health," with other states covering psychiatric services within physician service coverage.[310] There is also a growing body of evidence that suggests that the delivery of mental health services (and presumably substance use services) via tele-technology is both effective and economical; allowing access to difficult to engage persons and geographic areas, and deploying limited professionals (psychiatrists) efficiently.[311]

E-prescribing allows for the electronic exchange of prescriptions between the prescriber and a pharmacy. It is an important element in improving the quality of patient care, reducing medication errors, and ensuring understandable medical directions. E-prescribing has particular relevance to mental health and substance use treatment given that many people utilize medications to treat their mental health and substance use conditions. Nationally, 52% (291,000) of office-based physicians use e-prescribing; this is a 10% increase in three years; and 94% of retail pharmacies are able to receive electronic prescriptions.[312]

### *c) Personal Health Records*

Personal Health Records have become an increasingly important tool for helping consumers better control and manage their own health information. PHRs are controlled by the individual as opposed to the care

[307] Centerstone Research Institute. (2009). Behavioral Health/Human Services Information Systems survey. National Council for Community Behavioral Health Care.
[308] Lake, M., (2011). HIT Trends, Circle Square Inc., eHealth Initiative.
[309] Salomon, R. M., Blackford, J. U., Rosenbloom, S. T., et al. (2010). Openness of patients' reporting with use of electronic records: psychiatric clinicians' views. *Journal of the American Medical Informatics Association*.
[310] American Telemedicine Association, Policy Recommendation Brief submitted to Center for Medicare and Medicaid Innovation, 2011.
[311] American Telemedicine Association, (2009). Evidence Based Practice for Telemental Health.
[312] Lake, M., (2011). HIT Trends, Circle Square Inc., eHealth Initiative.

provider and as such they can help empower consumers and more effectively communicate with their care providers. PHRs can be used to track psychotropic medication use, keep up to date copies of Wellness Recovery Action Plans, and facilitate communication between mental health, substance use, and physical health care providers.[313]

While PHRs can be an important tool in a recovery-oriented system of care, the extent to which they are being utilized for people with mental health and substance use issues is not clear. Issues related to privacy of PHRs and how they can be used to help promote exchange of health information between non-English speakers and care providers and people with limited access to or comfort in utilizing technology require further exploration.[314]

## 2. State context

Dating back to the Telemedicine Development Act of 1996, California has been in the forefront of supporting the development of HIT, including HIEs, EHRs, and telemedicine. Until recently however, these efforts have been scattered and uncoordinated, reflecting the size and complexity of the state's geography, population, government and healthcare system. The adoption and use of HIT in general and specifically for behavioral health in California has been driven by a patchwork of policy and funding initiatives, which have become more integrated and coordinated only recently, largely as a result of the Health Information Technology for Economic and Clinical Health Act (the HITECH Act), which is part of the American Recovery and Reinvestment act of 2009 and the Mental Health Services Act.

It should be noted here as well that there are numerous public and private efforts underway in California to develop the HIT infrastructure in the state. The discussion that follows is limited to those areas of particular relevance to mental health and substance use providers.

### *a) The Medi-Cal EHR Incentive Program*

The American Recovery and Reinvestment Act of 2009 established the Electronic Health Record Incentive Program for Medicaid and Medicare providers. The Medi-Cal EHR Incentive Program offers payments to eligible Medi-Cal providers who meet established criteria for patient volume and who can demonstrate "meaningful use" of electronic health records. Given that the cost of implementing an EHR can be a barrier to implementing their adoption; this program is designed to help providers overcome this

[313] California Mental Health Planning Council. (2011). Electronic Personal Health Records. Retrieved on January 5, 2011 from: *http://www.dmh.ca.gov/Mental_Health_Planning_Council/docs/ElectronicPersonalHealthRecords.pdf*
[314] Ibid.

financial constraint. A single provider can receive up to $63,750 in Medi-Cal incentives over five years. It should be noted here that only certain providers/practitioners are eligible to receive these payments. These professionals are:

- Physicians (primarily doctors of medicine and doctors of osteopathy)
- Nurse practitioner
- Certified nurse-midwife
- Dentist
- Physician assistant who furnishes services in a Federally Qualified Health Center or Rural Health Clinic that is led by a physician assistant.

To qualify for an incentive payment under the Medicaid EHR Incentive Program, an eligible professional must also meet **one** of the following criteria:

- Have a minimum 30% Medicaid patient volume
- Have a minimum 20% Medicaid patient volume, and is a pediatrician
- Practice predominantly in a Federally Qualified Health Center or Rural Health Center and have a minimum 30% patient volume attributable to needy individuals

It should be noted here that mental health and substance use organizations are not currently eligible to receive facility payments as are acute care and children's hospitals. While mental health and substance use providers can receive payments for any of the eligible professionals described above, the bulk of practitioners delivering mental health and substance use services in California (social workers, marriage and family therapists, psychologists, etc.) are not eligible for these incentive payments. While there have been efforts at the national level to amend the language in the legislation so as to extend HIT assistance for mental health and substance use providers, these efforts have not resulted in changes to the existing legislation. This discrepancy in the funding for EHR adoption between behavioral health and physical health care providers, only serves to widen the HIT gap and makes efforts to promote health care integration using HIT more difficult. To highlight this discrepancy, the Medi-Cal EHR Incentive Program Landscape Assessment Summary Report estimated that approximately 20 percent of the nearly 10,000 Medi-Cal providers would meet CMS's patient volume threshold to qualify for incentive payments.[315] This number includes approximately 7,900 physicians, approximately 700 dentists, and

[315] McKinsey & Company and The Lewin Group (nd). Medi-Cal EHR Incentive Program: Landscape Assessment Summary Report. Department of Health Care Services, Office of Health Information Technology.

approximately 1,200 affiliated professionals. Additionally, approximately half of California's 435 hospitals in California, 242 (56%) were potentially eligible for incentive payment. These eligible hospitals account for nearly 93% of all Medi-Cal discharges.[316] In contrast, while some mental health and substance use practitioners such as psychiatrists or those working in Federally Qualified Health Centers may benefit from the payments, most do not meet the criteria to qualify for funding.

### *b) California's Mental Health Services Act Technical and Capital Improvements*

California's Mental Health Services Act, passed in 2004, to expand and transform California's county mental health system included "technical and capital improvements" as one of six components eligible for funding. The MHSA offered an opportunity for the state to develop a "Roadmap" for mental health system adoption of EHR. It is important to note that MHSA funding for technology infrastructure was administered by the Department of Mental Health and focused on mental health providers. While some providers may provide both mental health and substance use services and therefore could have benefitted from this funding source, many providers could not.

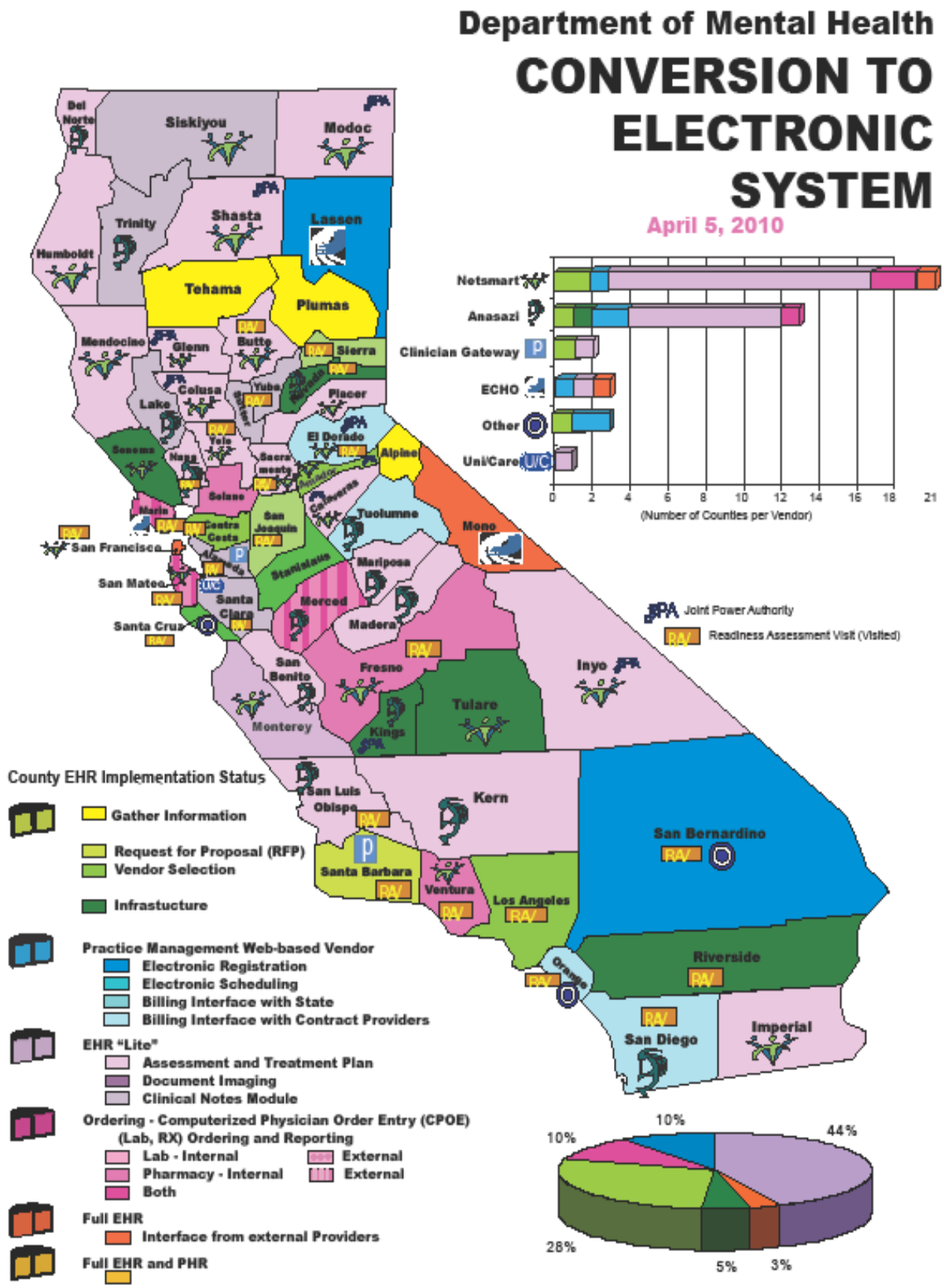
The "Roadmap" specified a timetable for six sequential objectives to be completed by 2014: [317]

1. 2006: Infrastructure Function Requirements (Hardware and software with basic level of security and systems ready to deploy software).
2. 2008: Practice Management (Registration, eligibility, accounts receivable, accounts payable, billing, documentation).
3. 2009: EHR "Lite" (Clinical notes and history)
4. 2010: Computerized Provider Order Entry (CPOE) (Internal and external laboratory, pharmacy and/or radiology ordering and history display).
5. 2012: Full EHR (infrastructure, health record capture, decision support, reporting, data transfer and CPOE components that are interoperable with external systems such as those used by contracted providers using industry standards).
6. 2014: Full EHR and PHR (Full EHR functionality and interoperability with a Personal Health Record system).

The map below created by DMH details the progress of the various counties in adoption of EHR as of April 2010.

[316] Ibid.
[317] http://www.dmh.ca.gov/Prop_63/MHSA/docs/Vision_and_Guiding_Principles_2-16-05.pdf

**Figure 10. Map of county progress on conversion to electronic system**



- Five (5) percent of counties were working on infrastructure issues,
- Twenty-eight (28) percent of counties were in the early phases of implementation (i.e., needs assessment, vendor selection etc.),
- Ten (10) percent were in the electronic practice management phase, and
- Forty-four (44) percent were engaged in EHR 'lite'.

This map also reflects that progress had been made by a small number of counties to more advanced phases of implementation including computerized physician order entry for lab and/or prescription ordering and results (10% of counties) and full EHR (3% of counties).

There are several notable examples of significant progress on the use of EHR's in behavioral health at the county or provider level. For example, Los Angeles County is about to sign a contract to install a fully integrated behavioral health information technology system, including EHR.[318] LACDMH is working on a data sharing agreement with LA Care, another of the physical health plans in LA County. [319]

In San Mateo County, mental health and primary care set out to address the sharing of basic health data such as medication lists and lab values as both systems had EHR's in place. They developed a method for data reconciliation and a data dictionary/cross-walk in order to track key information in an Excel workbook. Additionally, the County developed a shared clinical data summary that can receive downloaded information.[320] The county also recently received a SAMHSA grant of $196,684 to help further its efforts to use HIT and EHRs to better integrate care for people with chronic mental health and physical health conditions. Glenn County and Asian Community Mental Health Services (Oakland) also received SAMHSA grants to accomplish a similar objective as part of SAMHSA's larger Primary and Behavioral Health Care Integration initiative (PBHCI).

Tarzana Treatment Center, a large provider of mental health and substance use services, recently received SAMHSA grant of $280,000 a year for three years to expand use of HIT within their organization. This is in addition to the $200,000 HIT grant the organization was awarded as part of the aforementioned PBHCI initiative.

While the above examples are notable advances in the mental health and substance use field, the broader use in the mental health and substance use systems continues to contrast sharply with California specific

[318] CalMEND (2011). The Integration of Mental Health and Primary Care CPCI Learning Collaborative.
[319] Ibid.
[320] Ibid.

data available about the development and use of EHR's among physical health practices. For example, a study by the California Health Care Foundation, based on information collected between 2008 and 2011, found that 48 percent of physicians overall have adopted EHR, with a somewhat higher proportion (55 percent) of primary care physicians specifically. Electronic clinical documentation systems had been adopted by 32 percent of hospitals, with another 14 percent having contracted for, but not yet implemented, such systems. In community health centers the proportion having implemented was 47 percent, with 15 percent having contracted, but not yet implemented. A much smaller proportion of FQHC's have implemented EHR's with only 10 percent having fully implemented and another 20 percent using a mix of electronic and paper health records. [321]

## 3. Tele-health

The Tele-health Advancement Act of 2011 (AB 415) allows for the provision of a broader range of tele-health services, expansion of tele-health providers to include all licensed healthcare professionals, expansion of tele-health care settings and the ability for California hospitals to establish medical credentials for tele-health providers more easily. It also updates legal definitions of tele-health, streamlines medical approval processes for the delivery of tele-health services. Tele-health is a particularly important tool in providing access to psychiatrists who are in short supply throughout the state, but even more so in rural areas.

In 2007, the California HealthCare Foundation (CHCF) funded the Telemedicine to Improve Access & Efficiency in California Clinic Networks project[322] to explore the role tele-health could play in improving specialty care access for patients of community health centers (CHCs). Three CHCs participated. These are:

- Open Door, a rural CHC with nine sites in northwest California. Under the CHCF grant, Open Door upgraded and expanded its extensive existing tele-health infrastructure, including adding a school-based clinic and a number of specialty programs for behavioral pediatrics, diabetes education, and psychiatry.

- La Clínicas, a clinic organization with 26 sites across three urban/suburban counties in Alameda County. Under the CHCF project, La Clínica launched a store-and-forward tele-dermatology program at seven of its sites.

[321] California Health Care Foundation (2011). The State of HIT in California. Retrieved on January 6, 2011 from: *http://www.chcf.org/~/media/MEDIA%20LIBRARY%20Files/PDF/S/PDF%20StateHealthInfoTechnologyCA.pdf*
[322] *http://www.chcf.org/publications/2010/11/implementation-telehealth-community-clinics?view=print*

- Southside, a network of seven independent clinic organizations in urban South Los Angeles, with 18 community- and school-based sites. Southside implemented a tele-dermatology program at several of its sites.

There are also several current telemedicine projects, which involve behavioral health, including:[323]

- There are 16 tele-psychiatry clinics per month in Redding and Chico for medical fragile, dual diagnosis developmentally disabled, often involving multiple connections to include care team members at remote sites
- Development & implementation of Tele-Behavioral Health Grant to provide 1080 hours of behavioral health services to rural consumers and developmentally disabled regional center clients
- A tele-psychiatry service for hospital and clinic Emergency Departments that is operated by the Davis Health System of the University of California, one of the few such services in the country. The program utilizes video conferencing to provide psychiatric consultation at 5 hospital and 40 clinics in rural areas. [324]

Additionally, the California Tele-health Network (CTN), is working on supporting access to technology for rural and medically underserved (urban areas where sparse healthcare provided) areas. This includes a specific emphasis on behavioral health providers as access to specialty care services is among the most requested services at rural sites. [325]

## D. RESULTS OF KEY INFORMANT INTERVIEWS

Interviews with key informants offered additional information about the status of mental health and substance use related HIT efforts in California. Key themes that emerged included:

- Concerns related to confidentiality and the differing standards for privacy of patient information, particularly for substance use treatment under 42 CFR Part 2, has made sharing of information among physical health and behavioral health care providers using HIE or EHRs difficult. Some noted that physical health care providers are not aware of the differing privacy standards related

[323] Susan Ferrier, S., (nd). Rural/Frontier/Special Population Transitions of Care Enhancement Through Portable Personal Health Records (PPHR), Connecting to Care.
[324] California Health Care Foundation (2009). Telepsychiatry in the Emergency Department: Overview and Case Studies. *http://www.chcf.org/publications/2009/12/telepsychiatry-in-the-emergency-department-overview-and-case-studies*
[325] Brown, E. (personal communication, August 22, 2011).

to substance use treatment records and do not have consent forms that include SUD related language. Key informants noted that the privacy and confidentiality concerns are one of the biggest barriers to interoperability.

- California's structure of managed care for physical health care and carve-outs for mental health and substance use has reportedly hindered integration between primary care and behavioral health, which has resulted in lack of interoperability of data systems.

- There are movements to better integrate data from DHCS, DMH, and DADP. The CalMEND project has been a factor supporting data integration. Data sharing agreements in place between DHCS and DMH in order to bring CSI data into DHCS warehouse; they are close to executing agreement with DADP to integrate CalOMS data.

- There are efforts to further develop use of PHR using web-based systems among county mental health departments that will allow for client access as well as access for primary care physicians.

## E. CONCLUSION

### 1. Issues

The above summary of HIT/EHR initiatives demonstrates that while there are HIT innovations occurring in California, the behavioral health provider community is still a long way from full implementation of effective HIT capacities and strategies, and lag behind physical health providers. This is particularly true for substance use service providers, which to date have not been eligible to receive funding for EHR development under ARRA or the MHSA. Even in Los Angeles and San Mateo Counties, large counties that have made great strides, there are major barriers to exchanging physical health and behavioral health information among providers and across the boundaries of the various systems and funding sources.

The information outlined above points to many barriers to implementation of HIT/EHR and the exchange of health information. These include:

- There is minimal funding for HIT/EHR for behavioral health providers when compared to general health providers;
- There is a dearth of fully integrated health/behavioral health systems and sites within which EHR and health information exchange would be most natural;

- The continued separation among the Medi-Cal physical health plans, specialty mental health plans, and Drug Medi-Cal at the state and county levels exacerbates the difficulties of forging effective health information exchange strategies and technologies;
- There are multiple statutory and regulatory barriers to exchanging personally identified health information among substance use, mental health and physical health providers;
- The presence of proprietary health plans and systems that may have disincentives to exchange health information;
- The severely restricted funding available for HIT/EHR acquisitions and installations compared to the vast need for such systems;
- The difficulty of clinical information sharing because health care organizations do not use data definitions and structures that can be easily cross-walked. This is true even when mental health and primary care services are located within the same organization and when both systems have electronic health records;
- EHRs are not sufficient by themselves to facilitate sharing and full use of critical information across providers and payers: a patient registry as a key building block to integration, and most local systems are not yet developing such integrated patient registries;
- There is not a direct fiduciary relationship between the State and mental health providers that are not operated directly by the county; instead, counties contract with private mental health providers.
- The variation in vendor system's across California's counties and their health plans impedes cross-county operability and integration between primary care and behavioral health;
- There is a proliferation of local county-specific databases designed for programs such as Criminal Offenders with Mental Illness, Drug-Court, Computer Resource Allocation Inventories and others that are not compatible an many different and idiosyncratic ways;
- Each county has to engage in specific efforts to establish data sharing agreements and navigate different systems; and
- In order to implement EHR systems, mental health and substance use service provider staff must be trained to function within an EHR environment and to adapt to HIT. This is a whole different dimension to workforce development and retention over and above training in best practices, cultural competence, etc.

## 2. Opportunities

Behavioral health HIT linked with HIT in general health through EHRs and other technologies will allow for the delivery of cost effective and high quality care. Expanded use of health technology and improved health information exchange can lead to: (a) expanded and improved integration of care; (b) increased quality, efficiency and effectiveness of services; (c) enhanced workforce skills and effectiveness; and (d) increased consumer use of personal health information and participation in health-related decision making.

It is recognized that neither the physical health system nor the behavioral health system will have sufficient resources to significantly increase HIT/EHR and health information exchange on the own over the next few years. However, some health integration and improvement opportunities under the ACA cannot be implemented without further progress with HIT/EHR, particularly in the mental health and substance use services realms. Improved use of technology and expanded exchange of health information must continue to be a priority for the field, even in the face of restricted resources.

There are a number of strategies that could be included in the behavioral health service system plan and/or adopted by DHCS and other state agencies to overcome barriers to implementation and to bridge the numerous gaps between behavioral health and physical health providers. These include:

- Completing work already started at the state level to provide guidance and solutions to counties and providers related to health information exchange;
- Developing standard state/county and county/provider contract language to form the basis for business associate agreements among and between health plans and their provider networks;
- Implementing DHCS standards for health home providers that encourage sharing of HIT/EHR to assure that mental health and substance use providers have opportunities to participate in health homes;
- Implementing (or permitting) provider reimbursement changes within physical health and specialty health plans to foster cross discipline and cross system health integration activities as a platform for increased HIT/EHR and information exchanges. Reimbursement changes could address same day services, care coordination, case management, and telemedicine functions and activities;
- Providing leadership and technical assistance to counties, health plans and providers in the formation of additional HIT consortia and partnerships to: (a) decrease the number of entities and

sites that must purchase and install HIT/EHR; and (b) to foster increased health information exchanges through utilization of uniform hardware, software, date definitions, etc.

- Providing financial incentives or opportunities for shared savings for health homes and multi-member consortia that achieve positive outcomes and cost savings through HIT implementations.

These potential implementation strategies will be further explored with DHCS and stakeholders as the behavioral health system plan is drafted.

# XII. REPORT CONCLUSION

## A. INTRODUCTION

The California Mental Health and Substance Use Needs Assessment report has been guided by: (a) the CMS Special Terms and Conditions for the Bridge to Reform 1115 Waiver; (b) health reform initiatives in the ACA, particularly the expansion of Medi-Cal eligibility with enrollment scheduled to begin in 2014; and (c) the unique characteristics and complexities of the overall California mental health and substance use system. For each major topic area, TAC/HSRI has explored the current state of the art both nationally and in California, and has analyzed both quantitative and qualitative data specific to each topic. The conclusions of each component of the overall Needs Assessment are intended to inform near term strategy development related to the Medi-Cal expansion population and other initiatives related to ACA and the waiver terms and conditions. At the same time, the conclusions are intended to identify issues and areas for longer term planning related to the overall quality and effectiveness of the California behavioral health system

This report is overflowing with data and information. The magnitude of this report, and the amount of detailed information provided related to each topic area, presents a challenge for state and county officials, providers, consumers and families and other stakeholders. Any one of the chapters in this report could be the basis for a major system planning and implementation effort. Thus, the challenge is to identify which elements are most important, and which must be addressed first. From all the information provided, what is most relevant? What actions are most important to take first? How can all the interlocking complexities of the current system be addressed? What elements of the current system should be preserved? What tools might we have to engineer the types of changes and improvements identified as potentially beneficial in the report? In the sections below TAC/HSRI suggest some salient policy issues and planning priorities that emerge from the mass of detail in the report.

Several topics such as workforce sufficiency and health integration have already been the subject of substantial state and local planning efforts. Efforts to quantify the size and needs of the Medi-Cal expansion populations have been carried out by other organizations as well as TAC/HSRI, and other entities are focusing on health homes and other aspects of ACA implementation. In addition, DHCS, DMH and DADP have been engaged in planning efforts to consolidate certain elements of their operations within DHCS, while at the same time considering other organizational options for the remaining DADP and DMH functions and responsibilities. Finally, the new realignment initiative promises to place additional responsibility and accountability at the county level, while at the same time changing the nature of the relationship between state administrative and oversight agencies and the

counties. In short, this behavioral health needs assessment was not conducted in a vacuum. Rather, it was conducted in parallel with many other information collection and planning activities in California. It was also conducted at a time in which the overall Medi-Cal, substance use and mental health systems are in flux: in part because of several years of constrained funding and reduced funding; and in part because of implementation of the Bridge to Reform waiver.

The Needs Assessment is just that: its purpose is to identify needs and gaps in the current behavioral health system. The reason to identify, quantify and document needs and gaps in the behavioral health system is not to point fingers, identify guilty parties, or reflect negatively on how the current system operates. In our experience in many other states as well an in California, almost everyone from top to bottom in the system is trying to do the best they can with the resources available to them. Rather, the reason to identify and document needs and gaps in the current system is to provide an objective platform for planning, priority setting, strategy selection, decision-making, and performance assessment going forward. Everyone wants behavioral health services to work better for people, and everyone wants to make sure that public resources are expended in the most cost effective manner possible. The Needs Assessment is intended to provide a foundation for making choices and taking actions that have the highest probability of success in attaining positive outcomes for people in the most cost effective and efficient manner. The Needs Assessment also defines a concrete baseline against which progress towards desired changes and improvements in the California behavioral health system can be measured.

## B. FINDINGS

### 1. Strengths of the current behavioral health system

In the course of collecting qualitative information and analyzing quantitative data, TAC/HSRI identified a number of key strengths in the current system. Major strengths in the system are summarized below.

#### *a) Implementation of the Bridge to Reform Waiver*

The Medicaid 1115 Bridge to Reform Waiver includes several initiatives that have the potential to improve behavioral health service access and integration. These include:

- Enrollment of seniors and people with disabilities (SPDs) into managed care is likely to increase participation of these individuals in behavioral health as well as physical health primary care and preventive interventions. It is also likely to provide more powerful incentives at the county level to share information and coordinate care across the specialty health plans and the physical health plans.

- The enrollment of uninsured single adults in the Low Income Health Plans (LIHP) will increase access to mental health (not substance use in most cases) services. And, as with the SPD managed care initiatives, enrollment in LIHP is expected to increase both the potential and the incentives for LIHP counties to coordinate care across the physical health and specialty health plans. Anecdotal information from several LIHP counties indicates that this type of information sharing and care coordination is beginning to occur, albeit informally.
- The DSRIP Category 2 Project – Innovation and Redesign: Integrate Physical and Behavioral Health Care promises to improve the quality and effectiveness of care for some of the most complex and highest risk populations in the state. At the same time, information about the experience of implementing integrated care, both organizationally and at the point of service, will be valuable for other organizations in California as they increase their efforts to integrate and coordinate care across physical and behavioral health.

### *b) The Health Home initiative*

Section 2703 of the ACA, Health Homes for Individuals with Chronic Conditions, holds great promise for improving care for individuals with mental health and substance use disorders. It offers the opportunity to overcome barriers to information sharing and care coordination between the physical health and specialty health plans. It also has the potential to generate substantially increased integration of care at the point of service for people with multiple disabilities. Finally, health homes provide both a framework and incentives for behavioral health providers to forge partnerships related to both integrated care delivery models and health information technology. As California considers opportunities to pursue as part of national health reform, health homes offer the chance to reduce the fragmentation in care received by people with chronic mental health and substance use disorders.

### *c) Medi-Cal benefit design*

This report frequently refers to the very limited behavioral health (particularly substance use) benefit for Medi-Cal beneficiaries who do not qualify for or access services through the specialty health plans. This report also emphasizes the bifurcation between the physical health plans and the specialty health plans. However, these issues should not mask the fact that California has a relatively complete benefit structure for substance use and mental health services in the specialty plans. TAC/HSRI typically analyzes Medicaid plans and waivers to assess the degree to which a state has the “tools” (service definitions, provider qualifications, rates, etc.) to implement preferred practice service modalities consistent with known best practices and the SAMHSA definition of a good and modern behavioral health system.

California has most of the service category and definition tools it needs for adult mental health in the specialty mental health plans. With the implementation of the *Katie A.* settlement, California will have many of the tools it needs for youth with serious emotional disturbance within the specialty mental health plan. And, although California's Drug-Medical program and covered services is limited and incomplete, it is on par with Medicaid coverage for substance use services in many other states.

The fact that California has relatively good covered services (benefit design) in the specialty plans does not mean that (a) it has all the covered services, best practice service definitions, etc. that are desirable; or (b) that these services are being widely or correctly implemented. For example, Drug Medi-Cal (DMC) includes Naltrexone, an evidence-based medication assisted therapy for substance use disorders, as a covered benefit. To date, this benefit is rarely if ever accessed by DMC providers on behalf of DMC participants. Another example is day treatment for adults with serious mental illness. The very high costs per participant suggest that many individuals have very long lengths of stay in this treatment modality. Current clinical practices in other jurisdictions emphasize very brief lengths of stay at this intensive level of care, quickly assisting adults to move into employment-related rehabilitative modalities.

### *d) Proposition 63: The Mental Health Services Act (MHSA)*

California has been able to add substantial resources to the mental health system for adults and youth through MHSA. MHSA funds have also supported beneficial planning and infrastructure development within county based mental health systems. Investments have been made in the implementation of evidence-based services, and in the development of partnerships to coordinate care at the point of service for consumers with complex, multi-system needs. MHSA funds now also constitute a portion of the certified public expenditures that comprise the match for Medicaid FFP for the specialty mental health program. This has expanded the utility of MHSA funds, but has also limited the flexibility with which the funds can be used.

In addition, MHSA funds have supported initiatives to improve and expand the mental health workforce, particularly with regard to addressing health access disparities based on cultural and linguistic barriers. Finally, MHSA funds have been used to foster improved health information technology (HIT) and the implementation of electronic health records (EHRs). These initiatives are limited at this point, but they could provide useful implementation experience to other counties and providers as they seek to implement HIT and EHR capacities.

### *e) Philanthropic and educational commitment*

California's Medi-Cal and related behavioral health systems have benefitted from long term and continuous support from both philanthropic organizations and educational institutions. Both the California Endowment and the California Health Foundation have invested substantial funds in research and demonstration projects of benefit to Medi-Cal and the public behavioral health system. The California Institute for Mental Health (CiMH) has spent many years fostering best practices within the public mental health system. For substance use services, the Integrated Substance Use Center at UCLA has provided similar expertise and technical assistance. Additionally, the Center for Health Policy research at UCLA has supported numerous initiatives.

### *f) Evidence-based practices*

California has demonstrated some progress in the implementation of evidence-based practices as defined by SAMHSA. It is notable that DMH's CSI database has the capability to track and report the numbers of individuals in that system receiving evidence based practices. Many other states are not yet tracking participation in evidence-based practices at the same level of detail as California DMH. As noted in other sections of this report, it is likely that many individuals in the DMH CSI databases are receiving services through the specialty mental health plans. Increasing participation in evidence-based services, particularly if these services maintain fidelity to their models, should assist to reduce inpatient and emergency department utilization in the specialty mental health plans over time.

## 2. Needs and gaps in the current system

The California behavioral health system has many strengths, and these strengths form a solid foundation for implementing system enhancements and improvements in the future. As has been described throughout this report, there are also a number of gaps and issues with regard to the system that need addressing.

It must be noted that California's behavioral health system has experienced serious budget cuts and service restrictions over the past few years. These occurred in the context of a behavioral health system that was already stretched for resources. In addition, the realignment policy had placed additional responsibilities at the county level, and it is not clear that the amount of funds available to be "realigned" is sufficient to meet these responsibilities. As with most states, the substance use services system in California is the most severely underfunded, even when compared to mental health services. The very low penetrations rates for substance use services in both Medi-Cal and DADP services is testament to this fact.

Virtually every state in the United States has faced budget cuts over the past few years, and with the exception of appropriations related to court settlements, there has been almost no increase in general fund resources in states since 2007. The fact that many states, including California, have converted state-funded programs to Medicaid reimbursement over that past 20 years has also resulted in a greater proportion of state general fund dollars going to match Medicaid, with the result that flexible grant-in-aid type funding for community safety-net services has become more limited.

Despite these serious resource restrictions and limitations, California still has substantial resources in its behavioral health system. And with the advent of ACA and health reform, California has new opportunities to make better use of its existing resources. For example, many uninsured single adults have very restricted access to community based substance use and mental health services in California. With the Medi-Cal expansion beginning in 2014, new enrollees will become eligible for a benchmark level of substance use and mental health services. This should allow counties that are currently expending general fund (state/county) and federal block grant funds on these types of services to re-deploy these resources into safety net and best practices services and care coordination efforts that cannot wholly be funded with Medi-Cal under the benefit design in the benchmark plan.

Even in behavioral health systems with very constrained resources there are typically opportunities to make more efficient and effective use of whatever resources are available. One example from California was the substantial shift from inpatient hospital costs to outpatient service costs in Medi-Cal between 2007 and 2009. Another example is the opportunity to convert some of the resources currently allotted to day treatment within Medi-Cal. To the extent that some of these resources can be converted to rehabilitation services over time, the costs per person should be decreased and the outcomes in terms of community tenure should be increased. Reduced budgets and over-stretched resources are barriers to system enhancement and improvement, but they also provide opportunities to make positive changes to assure that existing resources are used prudently and effectively.

This report has catalogued numerous issues and gaps in the current behavioral health system. These range from low participation and penetration rates for substance use services to workforce limitations to barriers to health integration to the scarcity of effective HIT capacity in the system. Each chapter has its own list of gaps and issues to be addressed, and consistent with the Bridge to Reform Special Terms and Conditions, many of these issues will be addressed in the Service System Plan. Here, TAC/HSRI will summarize high level issues that cut across the administering agencies, funding sources, benefit plans, provider networks, and people served within each component of the current behavioral health system. This identification of cross-cutting issues is intended to highlight system plans and interventions that

could drive transformation of many parts of the various systems in a uniform and coordinated manner. These crosscutting issues include:

### *a) Disparate administration and financing of major components of the system*

Until recently there has been trifurcated administration of behavioral health administration, policy, financing and operations in California. DHCS has managed the overall Medi-Cal plan and waivers, but administrative responsibilities for the specialty plans have until recently been outsourced to DADP and DMH via memoranda of agreement. DADP has overseen DMC and also most other substance use service funding from state general funds and the federal SAPT Block Grant. DMH has overseen the specialty mental health plans administered by counties, as well as MHSA and other state funds and the federal Mental Health Block Grant. This administrative separation (a) has exacerbated the inherent differences and boundaries between the physical health and specialty health plans; (b) has diffused accountability for the overall performance of these various systems and funding streams; and (c) has perhaps created unintended incentives for cost or care-shifting between the various plans and fund sources.

The administrative separation of these functions and program areas is further complicated by the devolution of the programs to the county level. There are 58 counties, each of which administers or contracts for physical health plans, mental health specialty plans, and with the exception of 15 non-participating counties, the DMC program. The new phase of realignment, which places most sources of mental health and substance use funding at the county level, could potentially increase the already wide discretion at the county level with regard to managing these programs.

The consolidation of mental health and substance use service Medi-Cal functions and other community service funding streams within DHCS presents an opportunity to integrate management and policy across these systems. However, at the county and provider level the DADP, DMH and DHCS systems are still quite separate, and a variety of strategies will have to be used to forge greater coordination and integration within those local systems.

### *b) Gaps in benefit design and coverage*

Consistent with the administrative separation of substance use, mental health and physical health services, differences in benefit design and coverage have also emerged. Perhaps the biggest gap is between the physical health benefit (both fee for service and health plans) and the two types of specialty plans. People have to meet high diagnostic, clinical and functional guidelines to access services from either DMC or the specialty mental health plans. At the same time, there is sparse coverage for behavioral health services in

the fee for services program and among most of the physical health plans. This leaves a wide gap in coverage for people with serious needs for substance use or mental health services who do not meet the clinical eligibility criteria for the specialty health plans.

The recent analysis of CHIS data reported by the UCLA Center for Health Policy Research (November 2011) identified 8.3 % of the adult population as being in need of mental health services. This analysis used a definition of "serious psychological distress" for people in the 8.3% category. This definition places people at a lower general level of need than the criteria for entry into the specialty mental health plans, but at a higher level of need than could be met with the very limited benefits available to Medi-Cal enrollees not accessing the specialty plans. This is a salient issue because the adults in the Medi-Cal expansion population are likely to be similar to the 8.3% of adults experiencing psychological distress identified in the UCLA report. In defining the behavioral health component of essential benefits for the new expansion population, DHCS will need to consider this current gap in existing benefit designs.

Another major gap in coverage is the lack of specific benefits for people with co-occurring mental illness and substance use disorder. Neither DMC nor the specialty mental health plans have specific benefits for integrated dual diagnosis treatment. Nor could we identify any formal mechanisms or financial provisions for effectuating referrals and coordinated treatment between the two types of specialty plans. The overall Medi-Cal claims data show very few participants receiving both mental health and substance use service encounters. Plus, only 11% of providers in the Medi-Cal claims data deliver both substance use and mental health service encounters. As DHCS works with DADP and DMH to coordinate and integrate prudent purchasing of physical health and specialty substance use and mental health services, there will be opportunities facilitate consumer flow between the plans to assure access to appropriate benefits and levels of care for people with multiple conditions.

### *c) Care is not integrated or coordinated*

As noted above, there are no mechanisms for measuring performance or providing incentives to physical health and specialty plans for integrating and coordinating care. Nor are there specific reimbursement mechanisms within Medi-Cal that would support team service delivery, joint plan of care development, psychiatric consultation to primary care, or many other mechanisms of care coordination and integration. If DHCS implements a health home program it is likely much of this issue will be addressed. Nonetheless, there are many Medi-Cal participants, including potentially the expansion population, who are not eligible to participate in health homes. In addition, there are additional barriers to information

sharing and accessing HIT/EHR technology that will not automatically be corrected in a health home initiative.

Cross system and cross-plan integration and coordination is an area that could be improved through performance measurement and financial incentives as well as through traditional collaborative and co-location approaches. Enhanced performance measurement and incentives could be incorporated into a uniform purchasing plan that would integrate DHCS's prudent purchasing objectives across the multiple plans and jurisdictions.

### *d) There are cultural/linguistic and regional variations in access to services*

California is similar to many other states in that: (a) it does a good job of tracking and reporting access to Medi-Cal services for each ethnic group; (b) the proportion of people within each ethnic group service by Medi-Cal, at least in the specialty plans, is not very far off from the proportion of each group in the general population; and (c) despite these efforts and successes, there are is still disproportionate access to behavioral health services on the part of certain ethnic populations. When compared to overall estimated mental health and substance use service needs among the population of California (prevalence), White and African American groups are served in higher proportions (17% and 31% respectively) than are Asian, Native American, or Hispanic populations (6%, 13% and 8% respectively). This issue is compounded by the relative lack of cultural/linguistic capacity among providers and practitioners in California.

County level variations in access to Medi-Cal behavioral health have also been identified in the data. When analyzing penetration rates for the expanded definition of mental health prevalence (the definition most likely to reflect the Medi-Cal expansion population), there is a range in penetration rates of 18% (Yuba County) to 3% (Sutter, Alpine and Sierra Counties). Within the large county category, there is a range of 10% (San Francisco) to 4% (Orange, Riverside and San Mateo Counties).

For substance use prevalence, the ethnic and geographic variations are similar. For example, penetration rates as a function of estimated prevalence of SUD for Hispanic people is 12%, whereas the rates are for African Americans (33%), Asians (34%), Native Americans (40%) and Whites (24%). At the county level, the range of penetration rates is from 14% (Lake County) to 1% (Orange, San Mateo, San Luis Obispo, Sutter, Colusa and Mono Counties). For the large counties, the range is from 7% (San Francisco) to 1% (San Mateo).

For both ethnic and geographic variations in access to mental health and substance use services, DHCS and its DADP and DMH partners will want uniform standards, provider qualifications and engagement strategies for reaching out to underserved populations and geographic areas. The outreach and engagement strategies developed for the Medi-Cal expansion population are likely to be models for this type of effort.

In the site visits and stakeholder interviews TAC/HSRI was unable to discern uniform access, intake and referral practices and procedures within the counties. It appears at this point that the mechanics of sorting out who would be referred to which plan; what would happen if a referral to a plan was not completed or accepted; what follow up would be arranged for people waiting for services, etc. have not been specified clearly in many counties. Some counties reported plans to implement a coordinated intake process to assist people to make informed choices about accessing services, and to "channel" people to appropriate plans and services. Implementation of the LIHP in some counties seems to be stimulating this type of activity.

Given the trifurcation among the DMC, mental health specialty and physical health plans, given the LIHP and SPD enrollment strategies, and given enrollment of the expansion population in 2104, some guidance and/or standards related to uniform access and intake procedures would be useful from DHCS and its partners at the state level.

### *e) Gaps in evidence based practices and integrated care*

TAC/HSRI has noted that and emphasis on evidence based practices (EBPs) is a strength of the California mental health system. The availability of MHSA funds and the emphasis on creating best practices and point of service partnerships for people with serious mental illness has resulted in some positive trends in the mental health system. However, as the data from DMH demonstrates, the system is currently only scratching the surface with regard to developing and delivering evidence based practices. At this point each EBP is reaching less than 2% of the service population. The fact that the reported employment rate for consumers in the DMH database is only 2% (compared to a national average of over 20%) is evidence that recovery-focused EBPs are not having a widespread effect on adults with serious mental illness. In addition, we were not able to discern a formal or routine process whereby the fidelity of EBPs to their models was being monitored.

The new EBP services being implemented under the *Katie A.* settlement will significantly improve access of multi-system SED youth to best practice modalities. This is a relatively new development, and there is no data yet about the degree to which these EBPs are reaching high risk youth in the system.

With regard to substance use services, the system does use ASAM criteria and levels of care in several counties to determine level of care and triage for needed services, which are considered to be good practice. However, evidence based practices such as medication assisted treatment, are sparsely implemented in the current SUD system. While knowledge of evidenced-based practices is continually evolving, and the science is more robust and thorough for mental health practices than for addiction practices, there are further strides that could be made to enhance addiction treatment.

For adult and child mental health, and for substance use services, there is also a question of use of evidence based clinical modalities within a treatment category. For example, cognitive behavioral treatment (CBT) is an evidence based treatment approach that is usually delivered in an outpatient treatment setting. At this point there is no source of data in either the Medi-Cal claims files or the DMH system to identify whether an outpatient episode of care represents CBT or some other treatment approach for which there is a less convincing evidence base.

Finally, as noted above, there are currently no specific requirements, standards or measures for performance related to coordinating and integrating care across the various health plans and among the various county-administered systems. TAC/HSRI have identified several positive models being implemented at the county level, and have anecdotal information about multi-system efforts to coordinate care through local coalitions and partnerships. We are aware that several of the physical health plans have been engaged with county mental health and substance use systems to work on protocols for sharing information and coordinating care. However, at this point these activities are voluntary and guided by local issues without an overlay of state policy. As discussed in the chapter on Health Integration, most of the demonstrations have allowed for local variation in implementation strategies.

In the future, the performance and cost effectiveness of Medi-Cal and all its components, including the specialty plans, will depend on increased utilization of evidence based and promising practices and on improved coordination among the physical health, substance use, and mental health services systems and health plans. DHCS and its partners will want to have uniform prudent purchasing policies that address both sides of the best practice issue. One side of the issue is; “How much money are we spending on evidence based practices, are these getting to the right consumers, and are that producing the desired results?” The other side of the issue is: “How much money are we spending on services for which there is

a less robust evidence base, and how can we incentivize the movement of these resources towards more evidence based practices?"

## C. TARGET AREAS FOR PLANNING

This Needs Assessment has identified a number of key issues for DHCS and its DMH and DADP partners. We recommend that these key issues be considered as priorities to be addressed in the Service System Plan to be submitted to CMS by October 1, 2012. TAC/HSRI recognizes that there are both near term and longer term issues to be addressed in the Service System Plan. For example, DHCS needs to develop concrete plans for enrolling the 2104 expansion population very soon. DHCS is also considering whether to pursue a Health Home state plan amendment, and this initiative will address many of the integration issues identified in this report.

At the same time DHCS and its partners will be looking at a three to five year horizon for addressing some of the provider sufficiency, information technology, and evidence based practice redeployment and development strategies. The near term implementation process should set the state for the longer term objectives. And, success with the near term strategies should motivate further improvements in the system and perhaps free up resources for investment in expanded EBPs, HIT, and other desired system enhancements.

### 1. Prudent purchasing plan

As a framework for the system planning process, TAC/HSRI recommends conceiving of the task as the development of a comprehensive and uniform purchasing plan for DHCS, DMH and DADP. This purchasing plan would provide an overall framework for making management, financing and performance monitoring decisions across multiple health plans and multiple county-managed/operated systems. DHCS, DMH and DADP already have or are working to develop measures for performance and client outcomes that can be used as the foundation of a coordinated purchasing approach. It would also ensure that there are no structural gaps between the benefit designs and levels of care included in the various plans. The purchasing plan would address:

- Benefits for enrollees in the system: what are the intended results and outcomes for beneficiaries of the services provided?
- Access to services: what can beneficiaries expect with regard to equity of access to services? What will be the protocols for assuring access to appropriate plans and benefit designs?

- Best Practice services: what is the best practice array of services and clinical modalities for people at each level of care within each plan? What performance standards and fidelity measures will be used to assure delivery of best practice services?
- Integrated treatment: what are the protocols and mechanisms for integrated treatment for people with multi-occurring conditions, and how and under what conditions will health information be shared? Under what circumstances will a beneficiary have a single integrated plan of care?
- Accountability for appropriateness and continuity of care: What responsibilities do the counties, the plans, and their provider networks have with regard to continuity of care for enrollees? Who is at risk for increased costs if people do not receive the right service at the right time or otherwise slip between the cracks in the various systems?
- Provider sufficiency: How will the counties and the plans assure that the providers in their networks have sufficient cultural/linguistic competency, health information technology, staff certified in evidence based practices, etc. to meet outcome and performance measures?
- Financial risk: who and under what conditions will hold financial risk for over spending or under spending in the system? Will the specialty plans convert to actuarial risk or other shared risk approaches over time? Will financial or performance risk be shared across health plans for people with multi-occurring conditions requiring integrated care?
- Performance risk: In what ways might plans and providers be rewarded for positive performance? Will there be any downside risk to plans and providers in performance thresholds are not met?

## 2. Strengthened local oversight

In the above purchasing plan recommendations we are recommending an assertive role for DHCS and its state partners with regard to how money is spent for behavioral health services, who is served, what services they receive, and how performance of the system is assessed and rewarded. We have recommended that this approach extend to the physical health plans as well, since care must be coordinated across the boundaries of the physical and specialty health plans. We believe this centralized role as the prudent purchaser of services is both necessary and appropriate for the state level managing agencies.

At the same time, the California behavioral health system is essentially devolved to the county level for funding, management, and oversight. Thus, the county role in managing the mental health and substance use systems in the context of the purchasing plan must be strengthened and clarified as well. Because of the great variation among counties, the state will have to assist counties to select and develop management strategies and tools tailored to their own local systems. For example, COHS counties are

likely to employ different strategies for integrating care across physical health plans than two-plan counties. Also, some counties directly operate large provider agencies. Exercising performance measurement and accountability for directly operated providers is a different management task form managing a contracted network of providers.

If there is a comprehensive purchasing plan with uniform standards and measures of performance, and if there is equivalent benefit design among the various types of physical health and specialty plans, then it should be possible for counties to use different methods to attain the same goals.

Management of plans is one key function of the counties, but there are other key functions to be considered as well. One example would be implementing uniform intake and access protocols to assure informed plan and service choice and to assure equity and appropriateness of access to services. Another example is inter-system collaboration. It has been noted frequently in this report that people in need of mental health and/or substance use services also typically need assisted access to and coordination of affordable housing, employment, education, transportation, and support for community integration and social supports. At the same time, other local systems depend on the mental health and substance use services systems to be responsive to the needs of their clientele. These include law enforcement, criminal justice, juvenile justice, child welfare, and public health organizations and systems. It is important for counties to have clear responsibilities and accountabilities with regard to managing all these interagency and intersystem collaboration activities.

### 3. Integration of mental health and substance use services

TAC/HSRI has noted that it is somewhat uncommon to have separate Medicaid plans for specialty mental health services and DMC services. The separation of the plans makes it more difficult to coordinate care for people with co-occurring conditions, and also complicated the task of coordinating care for people with substance use or mental health services needs who are enrolled in a physical health plan. This will become a more salient issue if the Medi-Cal expansion population is enrolled in physical health plans.

There is no doubt that the integrity of substance use and mental health services needs to be protected. And there is no doubt that some people with co-occurring needs are better served from the substance use perspective rather than the mental health perspective. Integrated Treatment for Co-Occurring Disorders is a mental health evidence based practice, and not all people with primary substance use disorders fit well into this practice. Despite these cautions, DHCS, DMH and DADP should explore ways to more fully integrate DMC and the specialty mental health plans.

## 4. Benefit design for the expansion population

DHCS will be making decisions soon about the behavioral health essential benefits to be included in the benchmark benefit design for the Medi-Cal expansion population. The federal Department of Health and Human Services recently announced that it will allow considerable discretion to the states in selecting benchmark plans from which the essential benefits will be derived.

TAC/HSRI recommends two considerations for the decision related to essential behavioral health benefits. First, we recommend that the essential benefit behavioral health services benefit design and service definitions be consistent between the Medi-Cal benchmark plan and the benchmark benefit for the exchange. It is well known that individuals and families frequently move between Medi-Cal eligibility and non-eligibility. This phenomenon has already been noted in some of the analyses related to the California Medi-Cal expansion population. For the purposes of continuity of treatment it would be valuable for participants to be able to receive identical benefits whether in Medi-Cal or the obtaining insurance via the exchange. Equity of benefits would also remove any unintended incentives for people to choose to remain enrolled in Medi-Cal in order to protect their level of behavioral health coverage.

Second, we recommend that DHCS assure that there is not a substantive gap between the benefit design for the benchmark plans and that for the specialty plans. As we have noted above, in the current system there appears to be a gap between the level of benefits one can receive when enrolled in the specialty plans versus what can be received in the physical health plans. Many people, including single adults, families and children, need more than 12 outpatient encounters per year, some impatient care and some medications to address their mental and substance use issues. The current system de facto results in an "all or nothing "approach to benefits. This will probably not be useful to beneficiaries or cost effective in the future, particularly for the expansion population. As noted above, analysis of CHIS data has shown that a number of California citizens have un-met needs for mental health services that are greater on a person-by-person basis than the minimal benefit outside of the specialty plans. At the same time these people probably would not qualify for the specialty mental health benefit.

In addition, newly enrolled expansion population participants will only be eligible for the benchmark plan, not the specialty plans. This increases the importance of tailoring the benchmark plan behavioral health benefits as much as possible to dovetail with the benefits of the specialty plans.

## D. NEXT STEPS FOR THE NEEDS ASSESSMENT AND PLAN

### 1. Review and comment

This draft Needs Assessment will undergo a series of reviews. Reviewers will include all parties involved in the needs assessment process as stakeholders, including state and county officials, consumers and families, providers, hospitals, and many of the advocacy organizations representing these stakeholders.

Once the review process is complete, TAC/HSRI will work with DHCS to make all applicable changes in this report in time to submit it to the federal Centers on Medicare and Medicaid Services (CMS) by March 1, 2012. Both the original draft of the report and the final revised version of the report will be posted on the DHCS website, so interested parties can identify changes made to the final draft.

### 2. DHCS delivers report to CMS and SAMHSA

In conformance with the Special Term and Conditions, DHCS intends to deliver the final revised needs assessment to CMS on March 1, 2012.

### 3. Draft mental health and substance use system plan

As soon as the needs assessment report is delivered to CMS, TAC/HSRI will begin working with DHCS and its state partners and stakeholders to develop the Service System Plan specified in the Special Term and Conditions. A preliminary work plan for this process is already posted on the DHCS website. A more detailed work plan for the system planning process will be developed once the plan priorities and parameters are established by DHCS. The detailed work plan will include processes and time frames for additional stakeholder involvement and input as the planning process proceeds.

A has been stated consistently throughout the needs assessment process, this Service System Plan is being developed in conformance with and in response to the Special Terms and Conditions for the Bridge to Reform Waiver. As such, the focus of the needs assessment and plan is primarily on the Medi-Cal program, with emphasis on mental health and substance use services for the expansion population.

There is always a temptation to want a plan to be all things to all stakeholders and to address all issues. The Needs Assessment has identified a number of needs and gaps in the California mental health and substance use services system, as well as many strengths and building blocks for improvements. In the transition from the needs assessment to the planning process, it will be necessary to narrow the focus and to select priority issues for strategic planning that (a) are directly relevant to the Medi-Cal behavioral health system; (b) are consistent with the Bridge to Reform Waiver and the Special Terms and

Conditions; and (c) have the highest probability of producing benefits for beneficiaries and for the system in the most cost effective manner.

### 4. Plan deliverable - date

The Service System Plan is due to be delivered by DHCS by October 1, 2012. As noted above, we anticipate there will be an opportunity before that delivery date for stakeholder review and input.