DRAFT REPORT FOR STAKEHOLDER REVIEW. RESPONSE DEADLINE: AUGUST 31, 2011

Mental Health Services Act Evaluation: Compiling Data to Produce All Priority Indicators

Contract Deliverable 2C

UCLA Center for Healthier Children, Youth and Families

EMT Associates, Inc.

June 30, 2011

The following report was funded by the
Mental Health Services Oversight and Accountability Commission.

Focus

The Mental Health Services Act (MHSA) evaluation team was charged with developing templates and reports on statewide and county specific data that would improve understanding of how the MHSA impacted consumers. More specifically, and per contract language, the team will:

> *Design and complete statistical analyses and reports that measure impact of MHSA at individual and system levels on indicators specified in the Matrix of the California Public Mental Health System Prioritized Performance Indicators at the state and county levels. Draft templates, documentation of analysis, and initial statewide reports will be circulated to key stakeholders and made available to the public for input by posting on the web and making a hard copy available upon request.*
>
> *Individual client outcomes for full service partnerships (FSPs) by age group must be addressed for each domain (education/employment, homelessness/housing and justice involvement) as specified. Note: this impact analysis at the individual level is limited to available data (i.e., a small segment of public mental health clients, full services partners, is reflected in this data.) Mental Health system performance must address family/client/youth perception of well-being, demographics of FSP population, FSP access to primary care, penetration rate and changes in admissions for the entire public community mental health population, involuntary care, and annual numbers served through [Community Services and Supports programs] CSS.*

The evaluation team submits the following report in fulfillment of this charge. We do so acknowledging that this report is not final until key stakeholders have reviewed and provided their insights about issues related to measuring the impact of MHSA.

Stakeholder Feedback

As noted in the contract language, input from key stakeholders and mental health service advocates is key to developing a final report. To reflect input from a range of stakeholder groups in the report's development, the evaluation team will enlist feedback from existing groups (e.g., FSP Advisory Committee, Equality California, Racial and Ethnic Mental Health Disparities Coalition, California Mental Health Directors Association, National Alliance on Mental Illness, California Mental Health Planning Council, the California Network of Mental Health Clients, United Advocates for Children and Families, and other providers and representatives of un-served and underserved populations) over a one-month period. The evaluation team will avoid imposing additional work on these groups and instead will allow groups to rely on their existing internal processes for reviewing and responding to mental health-related reports. The evaluation team will only provide a set of questions tailored to each group's expertise to maximize the amount and quality of feedback gained about target issues in this report. Thus, the following report is not a final product. Instead, it is a starting-point from which stakeholders can begin a conversation about measuring mental health impact since the MHSA's initiation.

Feedback Process

This report constitutes the beginning steps in a process designed to solicit feedback for numerous consumers and stakeholders. As such, it should be viewed as a draft. The final report, which is due on 9/30/11 will incorporate the feedback we receive (see Figure 1: *Steps Leading to Statewide and County Specific Data Reports* on the following page).

While we welcome feedback on all aspects of the report, along with this report we have provided a brief "guidance" document. The goal of this guidance is to provide everyone who chooses to comment, suggestions regarding the aspects of the report where we would like feedback.

Given the timeframe for our contract we would like to receive feedback anytime between 7/29/2011 and 8/31/2011. After this period we will compile all the feedback, identify common themes and concerns, and revise the reports accordingly. We expect some recommendations from different individuals or organizations to be at odds with each other. We will negotiate these differences by incorporating into the report as many recommendations or alternative views as make sense given the context.

Format of feedback

With the exception of general comments and reactions, whether it be to our guidance questions or your own suggestions, feedback should make reference to a specific page(s) in the document so the evaluation team can appropriately address the suggestion or concern. Comments can be emailed to the addresses below.

Starting July 29th, you can download the documents from the following websites if you need them, along with the guidance questions.

MHSA Website

http://www.mhsoac.ca.gov/Announcements/announcements.aspx

UCLA

http://healthychild.ucla.edu/MHSA_evaluation.asp

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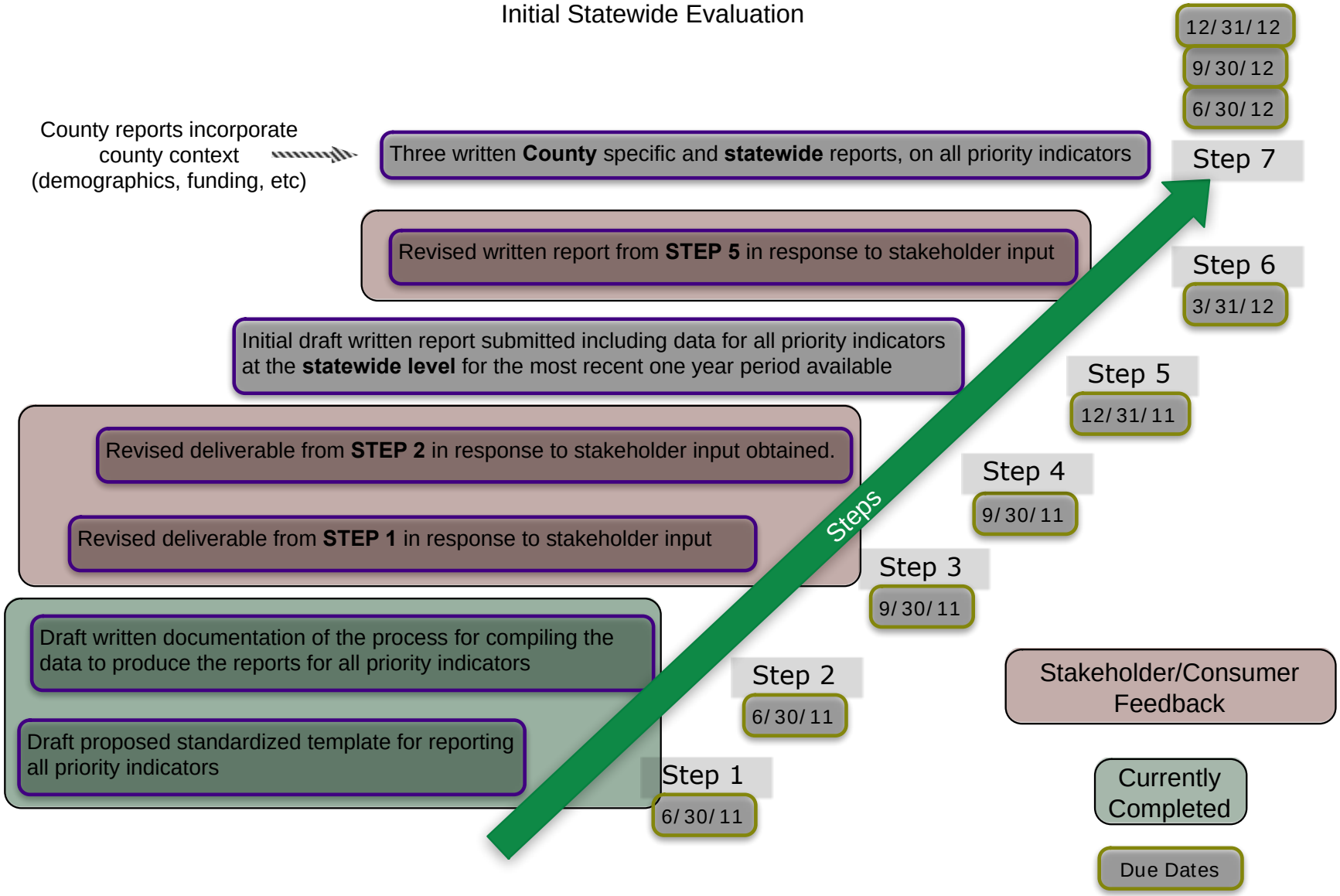
Steps Leading to Statewide and County Specific Data Reports

Initial Statewide Evaluation



Overview

This draft report proposes processes for creating useful measures of priority indicators that can be used to monitor how the Mental Health Services Act (MHSA) impacts consumer outcomes and mental health service system performance statewide and at the county level. The *priority indicators* themselves were proposed in a preceding report (*Templates for Reporting Priority Indicators, Deliverable 2A*). These proposed indicators were intended to identify measurable Community Services and Supports (CSS) program outcomes, including consumer outcomes and measurable characteristics of mental health service system capacity and performance. This report details how each priority indicator can be represented using survey and service description (e.g., outputs) data already collected within each county. The report identifies data sources, identifies specific data items (variables) within those sources, and proposes methods of combining data into more adequate indicators where appropriate. No analyses are included in this report; rather data is organized in preparation for analyses that will take place subsequent to this report. Criteria for testing individual or multiple-item measures of indicators are identified. These quality tests will be applied to cull and refine proposed measures once access to the necessary data is acquired.

The report is organized by the following topics.

- Brief discussion of indicator development prior to this project
- Profile of the data sources used for this project – mental health-related surveys and reports that are regularly submitted by California counties
- Discussion of the criteria used to select, review, and refine measures
- Explication of the calculations proposed to create priority indicator measures
- Notes on examining data for quality and completeness
- Description of consumer stakeholder group roles in refining measures and calculations

Two tables are presented that summarize MHSA domains, priority indicators (i.e., consumer and system level), measures, relevant data sources and items, and necessary calculations. Where data quality concerns can be anticipated, or gaps are evident, recommendations for new data collection to attain measurement goals are included.

The report concludes with next steps in refining the measure and indicators to ensure accurate and comprehensive monitoring of consumer outcomes and mental health service system performance.

Background

The California Mental Health Planning Council (CMHPC) proposed a set of priority indicators to assess the impact of the MHSA on consumers and county service systems throughout the state. Council members designed individual-level priority indicators to create greater clarity about consumers' dispositions (e.g., employment, education, housing, justice involvement) following interventions coordinated through the MHSA. Similarly, council members proposed that system-

level priority indicators (related to consumer access, agency performance, agency structure) would explain how operations changed or were enhanced (if at all) by the Act. These indicators were ultimately adopted by the Mental Health Services Oversight and Accountability Commission.

As part of ongoing efforts to define priority indicators and identify how these indicators might be measured using data currently collected by counties, the evaluation team reviewed existing datasets to identify appropriate data sources and items. This process began with the set of indicators identified in *Templates for Reporting Priority Indicators, Deliverable 2A*. This document defines and provides the rationale for indicators recommended for monitoring county use of MHSA funds, and performance of MHSA initiatives. In this report, the evaluation team outlines a data extraction and measurement process to operationalize conceptually complete indicators of consumer outcomes and system performance related to the MHSA.

Objectives

The evaluation team conducted a search of available data with two goals: to 1) locate variables, relevant to each priority indicator, that are regularly collected; and 2) outline short protocols for converting existing data into priority indicators. The present report briefly documents this process, in which we provide guidelines about how to create relevant measures using current data to the extent possible. Throughout the report we note challenges in calculation, and areas in which new data might need to be collected.

Process for Reviewing Available Data

We reviewed several data dictionaries and instruments (e.g., surveys, forms) associated with their respective existing datasets or reports. The datasets and reports, listed below, reflect information that is regularly collected across counties at present. In the absence of access to raw data, we closely examined the qualities (e.g., item wording, response options, intended response population) of each item (variable), sorting which would be most appropriate to represent each priority indicator.

Client & Service Information (CSI)
The CSI system is a repository of county, client (e.g., age, gender, preferred language, education, employment status, living arrangement, etc.), and service information (number and length of service contact). The data is collected from all consumers who receive mental health services, including consumers involved in the Full Service Partnership.
Data Collection and Reporting (DCR) System
The DCR system houses data for consumers who are served through Full Service Partnership programs. Data from assessments – the Partnership Assessment Form (PAF), Key Event Tracking (KET), and Quarterly Assessment (3M) – are collected for consumers in specific age

categories. The PAF reflects consumer history and baseline information, including consumer education and/or employment, housing situation, legal issues, health status, and substance use. The KET reflects any important changes in the consumer's life such as housing, education and/or employment, and legal issues during service receipt. The 3M collects follow-up information on key areas such as education, health status, substance use, and legal issues each quarter.

Consumer Satisfaction Surveys (YSS for youth responses, YSS-F for family responses)

These consumer surveys are instrument sets customized for consumer groups (e.g., youth, adults, and older adults). Instruments are composed of widely validated tools such as the Child Behavior Checklist, Youth Self Report, and Restrictiveness of Living Environment Scale for youth assessment; the Global Assessment of Functioning, Behavior and Symptom Identification Scale, and the California Quality of Life for adults; and the Brief Symptom Inventory, Senior Outcomes Checklist 10, and Index of Independent Activities of Daily Living for older adults. The data, designed to inform treatment planning and service management, is collected from individuals with "serious, persistent" mental illness, have received services for 60 days or more, and are not categorized as "medication only." At minimum, data is customarily collected at intake, annually, and at discharge, however this schedule has changed in recent years. Findings are reported to the Department of Mental Health semi-annually.

Mental Health Statistics Improvement Program (MHSIP for adult responses and MHSIP for older adult responses)

The MHSIP consumer surveys are designed to assess client satisfaction, service accessibility, quality, and outcomes. Adult consumers and older adult consumers respond to the survey questions using a 5-point scale of agreement (e.g., 5 = strongly agree and 1 = strongly disagree).[1]

Quarterly Reports (Exhibit 6)[2]

Quarterly reports, including Exhibit 6, reflect consumer counts—the number of people who targeted and receive MHSA services. Counts are aggregated from different consumer pools, including Outreach and Engagement, and Community Services and Supports (CSS), among others. Service types and demographics are not included in reports. Data is reported quarterly then compiled into annual reports.

Calculation of Measures

Meaningful and useful measures must be carefully conceptualized, designed, and constructed. Doing so facilitates how variables are combined, or calculated, then interpreted. The indicators included in the measurement template proposed in *Templates for Reporting Priority Indicators,*

[1] Key informants have informed the evaluation team that the MHSIP surveys are sometimes also referred to as "POQI-Adult" and "POQI-Older Adult."

[2] In the previous deliverable (2A), we noted that key informants preferred the use of Annual Updates instead of Quarterly Reports although the state of Annual Updates was uncertain due to Assembly Bill 100. At the time of this report, the data dictionary associated with Annual Updates was unavailable, limiting what we are able to report here. The recommendation is described more fully in the discussion.

Deliverable 2A were expressed as absolute figures (e.g., counts, frequencies) or ratios (e.g., normalized data). These two types of indicators have distinct requirements for the data used to operationalize them, and implications for stakeholders who would use indicators to drive quality improvement. The following table outlines the implications for these two types of indicators.

Absolute Indicators
Counties often report data in terms of absolute figures, which might be expressed as the frequency (count) of a specific event or an indication of consumer status (e.g., attendance in school, employment status, housing status, receipt of service, type of service, etc.). Absolute figures can provide a) description of a services or outcomes at points in time, and b) provide the basis for critical analyses of differences across consumer groups, across time, and attribution of impact. Absolute figures are essential to any assessment of the parameters (e.g., carrying capacity, limits, or sustainability) of mental health systems and services, and the impact on consumers and families. For example, at the mental health system level, the total number of consumers receiving 24-hour care provides the possibility to consider service levels relative to a county's overall resource capacity. Similarly, absolute measures of consumer outcomes, such as the number of consumers attending school, will allow for comparison to other consumers and mental health systems. Absolute figures can provide an important perspective of the capacity, performance, and impact of mental health systems. When information regarding local MHSA context is lacking, absolute indicators can also be useful for stakeholders trying to understand the relative magnitude of county services and impacts, or reasons for prioritizing efforts. For example, identifying the 10 counties with fewest consumer arrests would require absolute figures, whereas ratios (e.g., normalized data) are more useful when making comparisons between counties. Absolute measures of MHSA performance and impact provide for: • consistent tracking; • data aggregation to key levels (e.g., county, state); and • ability to form additional ratios other than those included in the priority indicator template.
Ratio Indicators
Ratios relate two absolute figures to each other and provide context to both. For example, the efficiency of Community Services and Supports (CSS) can be expressed in terms of the number of consumers served through CSS relative to those who were targeted for service. Alternatively, to shift focus to the impact of the CSS program, the number of consumers served through CSS could be compared to all consumers receiving mental health services. Ratio indicators serve to:

- relate two absolute figures to each other;
- make relationships visible and interpretable by a broad audience; and,
- provide for comparison of different scales of operation relative to a specific service (e.g., number of incarcerated consumers per individual served)

Ratios may also be particularly useful for comparing counties or regions. Absolute figures sometimes do not provide the context in which performance or impact may be best understood. This may be particularly true among the diverse counties and regions of California. For example, the magnitude of a service will not always correlate with the size of the county in which it was administered. As illustration, it may be factually correct that county A served twice as many consumers as county B, but this would be misleading if county B were a quarter that size and twice as efficient in the administration of their services. For some indicators an absolute figure may be the most meaningful piece of information, but for others additional context is needed to accurately understand the implications of figure.

Single vs. Multiple Item Measures

To produce adequately robust measures, we applied a process to construct single or multiple-item measures as appropriate. In some cases a single data item is adequate to capture an indicator, such as when its meaning is clear and it has adequate variance and precision. For example, the number of days child or TAY consumers attended school in the past year may only require a single item (e.g., ATTENDANCEPAST12 – PAF). But often, single items are not adequate, or can be improved by combining several data items that express different empirical facets of an indicator. For example, to construct a robust and accurate measure of consumer or family perceptions of improvement in functioning, multiple survey (e.g., MHSIP) items are necessary to ensure several facets of this measure are assessed. When carefully constructed these multi-item indicators improve the reliability, validity and variance characteristics of the resulting measure.

Orientation to the Tables

The subsequent tables detail how proposed Priority Consumer and System Performance Indicators may be constructed. The tables are divided at the individual (Table 1) and system (Table 2) levels, and are intended to present options for constructing measures to represent priority performance indicators, from existing data or proposed additional data collection. Although the Planning Council envisioned consumer outcomes to be measured across Full Service Partnership consumers and system outcomes to be measured across all mental health service consumers (see Appendix 1), data sources in both tables reflect possibilities for outcome calculations across all mental health services consumers (via the Consumer Services and Information [CSI] system) as well as persons enrolled in Full Service Partnerships (via the Data Collection and Reporting [DCR] system).

The columns from left to right detail measurement domains, performance indicators, possible calculation of measures based on what is available (recommended and alternative), the databases or reports from which relevant items can be drawn, and the specific items within each dataset or report which may be used to construct measures. Not all data sources provide accurate indicator measurement, however we list these sources and their associated variables to generate discussion about how existing data might be re-envisioned or manipulated to represent a priority indicator.

To be clear, the Data Source and Dimension columns list all of the possible variables that might be used to calculate or estimate a measure. These columns should be considered an inventory of possible measures. In the absence of appropriate data sources, we recommend new data collection.

To make the most efficient use of existing and proposed additional data and data collection processes, and provide flexible performance measurement options at the state and county levels, we present "recommended" and "alternative" measures of priority indicators. *Recommended* measures are those that would most accurately reflect indicators, while attempting to take advantage of existing data systems. We consider these calculations optimal. *Alternative* calculations, considered as substitutes or supplements to the recommended calculation, are based on variables that currently exist within at least one of the Department of Mental Health datasets, and with manipulation can provide an approximate measure of the desired performance indicator. In the event that existing data can only provide an approximate measure of an indicator, additional data collection is proposed. The following tables detail how measures of each priority indicator can be constructed from existing or proposed additional data collection.

Table 1. Process for Compiling Data and Calculating Priority Indicators: Individual-level (Consumer) Outcomes for Full Service Partnerships[3]

Domain	Indicator	Calculation of Measure(s)	Data Source(s)	*Dimension* – Potential Items
1. Education/ Employment	1.1 Average attendance – score per year (Children, TAY)	**Recommended Ratio** Numerator: Number of days at school during a 9-month school year* / Denominator: Number of days during consumer's school year **Alternative Estimate 1** Number of days during consumer's school year* – Number of expulsions or suspensions during the year **Alternative Estimate 2** Attendance rate estimate for three quarters	DCR	Children • *AttendanceRate Estimate* – ATTENDANCECURR (PAF) (3M) ATTENDANCEPAST12 (PAF)
				TAY • *AttendanceRate Estimate* – ATTENDANCECURR (PAF) (3M) ATTENDANCEPAST12 (PAF)
			YSS	Children (Youth report) • *Current and previous expulsions* – LES12EXPSUS, LES12PSTEXPSUS, MOR12EXPSUS, MOR12PSTEXPSUS
			YSS-F	Children (Parent or guardian report) • *Current and previous expulsions* – LES12EXPSUS, LES12PSTEXPSUS, MOR12EXPSUS, MOR12PSTEXPSUS
			Proposed new data collection	Children and TAY • Number of days absent • Total number of school year days at consumers' school
	1.2 Proportion participating in paid and unpaid employment (TAY over 18, adults, and older adults)	**Recommended Ratio 1** Numerator: Number of employed consumers (reporting work hours) / Denominator: Total number of consumers eligible for employment (over 18 years old) **Recommended Ratio 2** Numerator: Number of employed consumers	DCR	TAY • *Paid employment* – Current_In-HouseAvgHrWeek (PAF), Current_OtherEmploymentAvgHrWeek (PAF), Current_SupportedAvgHrWeek (PAF), Current_TransitionalAvgHrWeek (PAF), Past12_Competitive (PAF), Past12_In-House (PAF), Past12_In-HouseAvgHrWeek (PAF), Past12_OtherEmployment (PAF), Past12_OtherEmploymentAvgHrWeek (PAF), Past12_Supported (PAF), Past12_SupportedAvgHrWeek (PAF), Past12_Transitional (PAF), Past12_TransitionslavgHrWeek (PAF) • *Unpaid employment* – Current_Non-paidAvgHrWeek (PAF), Past12_Non-paid (PAF), Past 12_Non-paidAvgHrWeek (PAF)

[3] Data sources that reflect all mental health service consumers (e.g., CSI) have been added in the event that broader information than what is learned about Full Service Partnership consumers is sought.
*Asterisk indicates information from new data collection or a data source not yet identified.

Domain	Indicator	Calculation of Measure(s)	Data Source(s)	*Dimension* – Potential Items
		receiving pay for work / Denominator: Total number of consumers eligible for employment (over 18 years old) **Recommended Ratio 3** Numerator: Number of employed consumers not receiving pay for work / Denominator: Total number of consumers eligible for employment (over 18 years old)		Adults • *Paid employment* – Current_In-HouseAvgHrWeek (PAF), Current_OtherEmploymentAvgHrWeek (PAF), Current_SupportedAvgHrWeek (PAF), Current_TransitionalAvgHrWeek (PAF), Past12_Competitive (PAF), Past12_In-House (PAF), Past12_In-HouseAvgHrWeek (PAF), Past12_OtherEmployment (PAF), Past12_OtherEmploymentAvgHrWeek (PAF), Past12_Supported (PAF), Past12_SupportedAvgHrWeek (PAF), Past12_Transitional (PAF), Past12_TransitionslavgHrWeek (PAF) • *Unpaid employment* – Current_Non-paidAvgHrWeek (PAF), Past12_Non-paid (PAF), Past 12_Non-paidAvgHrWeek (PAF)
				Older Adults • *Paid employment* – Current_In-HouseAvgHrWeek (PAF), Current_OtherEmploymentAvgHrWeek (PAF), Current_SupportedAvgHrWeek (PAF), Current_TransitionalAvgHrWeek (PAF), Past12_Competitive (PAF), Past12_In-House (PAF), Past12_In-HouseAvgHrWeek (PAF), Past12_OtherEmployment (PAF), Past12_OtherEmploymentAvgHrWeek (PAF), Past12_Supported (PAF), Past12_SupportedAvgHrWeek (PAF), Past12_Transitional (PAF), Past12_TransitionslavgHrWeek (PAF) • *Unpaid employment* – Current_Non-paidAvgHrWeek (PAF), Past12_Non-paid (PAF), Past 12_Non-paidAvgHrWeek (PAF)
2. Homelessness/ Housing	2.1 Housing situation/ Index- score (Children, TAY, adults, and older adults)	**Recommended Ratios 1** Numerator: Number of days that children or TAY (under 18) live in a family home annually/ Denominator: 365 days **Recommended Ratios 2** Numerator: Number of days that children or TAY (under 18) live in a foster home annually/ Denominator: 365 days **Recommended Ratios 3** Numerator: Number of days TAY, adults, or older adults are homeless/ Denominator:	DCR	Children • *Current housing situation* – CURRENT (PAF) (KET) • *Previous housing situations (week, month)* – EMERGENCYSHELTER-PASTTWELVEDAYS, EMERGENCYSHELTER_PASTTWELVEOCCURENCES, EMERGENCYSHELTER_PRIORTWELVE (PAF), HOMELESS_PASTTWELVEDAYS (PAF), HOMELESS_PASTTWELVEOCCURENCES (PAF), YESTERDAY (PAF)
			DCR	TAY • *Current housing situation* – CURRENT (PAF) (KET) • *Previous housing situations (week, month)* – EMERGENCYSHELTER-PASTTWELVEDAYS, EMERGENCYSHELTER_PASTTWELVEOCCURENCES, EMERGENCYSHELTER_PRIORTWELVE (PAF), HOMELESS_PASTTWELVEDAYS (PAF), HOMELESS_PASTTWELVEOCCURENCES (PAF), YESTERDAY (PAF)

Domain	Indicator	Calculation of Measure(s)	Data Source(s)	*Dimension* – Potential Items
		365 days **Recommended Ratios 4** Numerator: Number of TAY or adults with independent residential statuses/ Denominator: Total number of FSP TAY and FSP adults **Recommended Ratios 5** Number of TAY, adults, and older adults who are not homeless/ Denominator: Total number of FSP TAY. FSP adults, or FSP older adults		Adults • *Current housing situation* – CURRENT (PAF) (KET) • *Previous housing situations (week, month)* – EMERGENCYSHELTER-PASTTWELVEDAYS, EMERGENCYSHELTER_PASTTWELVEOCCURENCES, EMERGENCYSHELTER_PRIORTWELVE (PAF), HOMELESS_PASTTWELVEDAYS (PAF), HOMELESS_PASTTWELVEOCCURENCES (PAF), YESTERDAY (PAF)
				Older Adults • *Current housing situation* – CURRENT (PAF) (KET) • *Previous housing situations (week, month)* – EMERGENCYSHELTER-PASTTWELVEDAYS, EMERGENCYSHELTER_PASTTWELVEOCCURENCES, EMERGENCYSHELTER_PRIORTWELVE (PAF), HOMELESS_PASTTWELVEDAYS (PAF), HOMELESS_PASTTWELVEOCCURENCES (PAF), YESTERDAY (PAF)
2. Homelessness/ Housing (cont'd)	2.1 Housing situation/ Index- score (Children, TAY, adults, and older adults)	**Recommended Ratios 1** Numerator: Number of days that children or TAY (under 18) live in a family home annually/ Denominator: 365 days **Recommended Ratios 2** Numerator: Number of days that children or TAY (under 18) live in a foster home annually/ Denominator: 365 days **Recommended Ratios 3** Numerator: Number of days TAY, adults, or older adults are homeless/ Denominator: 365 days **Recommended Ratios 4** Numerators: Number of	YSS	Children • *Specific housing* – PARENT, FAMILYMEM, FOSTERHM, THERAPEUTIC, SHELTER, HOMESHELT, GROUPHM, RESIDENTX, HOSPITAL, JAIL, CORRECTIONS, HOMELESS, LIVEOTHER, *WHERE (follow-up to LIVEOTHER)
			YSS	TAY • *Specific housing* – PARENT, FAMILYMEM, FOSTERHM, THERAPEUTIC, SHELTER, HOMESHELT, GROUPHM, RESIDENTX, HOSPITAL, JAIL, CORRECTIONS, HOMELESS, LIVEOTHER, *WHERE (follow-up to LIVEOTHER)
			CSI[4]	TAY • PATIENT STATUS CODE (consumer's housing if recently discharged)
				Adult • PATIENT STATUS CODE (consumer's housing if recently discharged)
				Older Adult • PATIENT STATUS CODE (consumer's housing if recently discharged)

[4] Key informants have expressed concerns that CSI data designed to capture all mental health service consumers, is of questionable quality.

Domain	Indicator	Calculation of Measure(s)	Data Source(s)	*Dimension* – Potential Items
		TAY or adults with independent residential statuses/ Denominator: Total number of FSP TAY or FSP adults **Recommended Ratios 5** Number of TAY, adults, or older adults who are not homeless/ Denominator: Total number of FSP TAY, FSP adults, or FSP older adults		
3. Justice Involvement	3.1 Justice Involvement (Children, TAY, adults, and older adults)	**Recommended Ratio 1** Numerator: Number of consumer arrests annually / Denominator: 365 days **Recommended Ratio 2 – by age group** Numerator: Number of child, TAY, adult, or older adult arrests/ Denominator: Total number of FSP children, FSP TAY, FSP adults, or FSP older adults **Recommended Ratio 3 – by age group** Numerator: Number of child, TAY, adult, or older adult arrests / Denominator: County estimate of all children, all TAY, all adults, or all older adults	DCR	Children • *Recent arrest* – DATEARRESTED (PAF)
				TAY • *Previous arrests (year)* – ARRESTPRIOR12 (PAF
				Older Adults • *Recent arrest* – DATEARRESTED (PAF)
			YSS	TAY • Previous arrests (year) – MOR12AREST, MOR12PSTAREST
			YSS-F	Children (Parent or guardian response) • *Previous arrests (year)* – LES12AREST, LES12PSTAREST
			CSI	TAY • P-08.0 CONSERVATORSHIP/ COURT STATUS (if consumer is a ward of the court)
				Older Adults • S-20.0 LEGAL CLASS ADMISSION (if consumer has been admitted to acute 24-hour mental health services)
			MHSIP Adult	Adults • *Recent arrests* – ARREST • *Previous arrests* – LES12AREST, LES12PSTAREST
			MHSIP Older adult	Older Adults • *Recent arrests* – ARREST • *Previous arrests* – LES12AREST, LES12PSTAREST
4. Emergency Care	4.1 Emergency psychiatric hospitalizations and interventions for	**Recommended Ratio 1** Numerator: Number of mental health episode-related hospitalizations	CSI	Children • S-06.0 SERVICE FUNCTION (Identifies the specific type of service received by the client within 24 Hour, Day, and/or Outpatient mode of service)

Domain	Indicator	Calculation of Measure(s)	Data Source(s)	*Dimension* – Potential Items
	mental health episodes (Children, TAY, adults, and older adults)	annually/ Denominator: Number of consumers visits to the hospital for any reason annually **Recommended Ratio 2** Numerator: Number of emergency psychiatric interventions (numerator)/ Denominator: Number of consumer visits to a non-hospital intervention center annually		TAY • S-06.0 SERVICE FUNCTION (Identifies the specific type of service received by the client within 24 Hour, Day, and/or Outpatient mode of service)
				Adults • S-06.0 SERVICE FUNCTION (Identifies the specific type of service received by the client within 24 Hour, Day, and/or Outpatient mode of service)
				Older Adults • S-06.0 SERVICE FUNCTION (Identifies the specific type of service received by the client within 24 Hour, Day, and/or Outpatient mode of service)
			Proposed new data collection	Children, TAY, Adults, Older Adults • Number of non-psychiatric hospital visits • Number of visits to a non-hospital facility for mental health interventions

Table 2. Process for Compiling Data and Calculating Priority Indicators: System-level Outcomes for All Mental Health Consumers[5]

Domain	Indicator	Calculation of Measure(s)	Data Source(s)	*Dimension* – Potential Items
5. Access	5.1 Demographic Profile of Consumers Served	**Recommended Descriptives** Mean, mode, range, percentiles of age, gender, race/ethnicity of consumer population	CSI	• *Age* – C-03.0 Date of Birth • *Gender* – C-05.0 Gender • *Race/ethnicity* – C-09.0 Ethnicity; C-10.0 Race
			DCR	• *Age* – Date of Birth • *Gender* – Gender • *Race/ethnicity* – Ethnicity_A; Ethnicity_B
		Alternate Descriptives 1 Mean, mode, range, percentiles of age, gender, race/ethnicity of individuals living below the poverty line or unemployed	CSI	• *Employment Status* – P-03.0 Employment Status
			DCR	*Income* – Wages_Curr; Wages_Past12
		Alternate Descriptives 2 Mean, mode, range, percentiles of age, gender, race/ethnicity of homeless	CSI	• *Homelessness* – P-09.0 Living Arrangement
			DCR	*Homelessness* – Homeless_PastTwelveDays; Homeless_PastTwelveOccurences; Homeless_PriorTwelve
	5.2 New Consumers by	**Recommended Descriptives** Mean, mode, range, percentiles of	DCR	• *Age* – Age_Group • *Gender* – Gender

[5] Data sources that reflect Full Service Partnership consumers have been added in the event that specific knowledge about systems from this population is sought.

Domain	Indicator	Calculation of Measure(s)	Data Source(s)	*Dimension* – Potential Items
	Demographic Profile	age, gender, race/ethnicity of new consumers (< 6 months)		• *Race/ethnicity* – Ethnicity_A; Ethnicity_B • *Length of Service* – PartnershipDate
		Additional Descriptives Mean, mode, range, percentiles of age, gender, race/ethnicity of existing consumers (> 6 months)	• CSI	• *Age* – Age_Group • *Gender* – Gender • *Race/ethnicity* – Ethnicity_A; Ethnicity_B • *Length of Service* – S-15.0 Admission Date; S-16.0 From/Entry Date; S-17.0 Through/Exit Date; S-18.0 Discharge Date
			DCR	• *Age* – Age_Group • *Gender* – Gender • *Race/ethnicity* – Ethnicity_A; Ethnicity_B • *Length of Service* – PartnershipDate
	5.3 High Need Consumers Served	**Recommended Count 1** Total homeless - FSP consumers served[6]	DCR	• *Homeless* – Homeless_PastTwelveDays; Homeless_PastTwelveOccurences; Homeless_PriorTwelve
		Recommended Count 2 Total homeless - all consumers served	CSI	• *Homeless* – P-09.0 LIVING ARRANGEMENT
		Recommended Count 3 Total unemployment - FSP consumers served	DCR	• *Unemployed* – Current_Unemployed
		Recommended Count 4 Total unemployment - all consumers served	CSI	• *Unemployed* – P-03.0 EMPLOYMENT STATUS
	5.4 Access to Primary Care Physician	**Recommended Ratio 1** Numerator: FSP consumers who have a primary care physician currently and over the past 12 months/Denominator: Total number of FSP consumers	DCR	• *Primary Care Physician* – PhysicianCurr; PhysicianPast12
		Recommended Ratio 2 Numerator: Consumers who have a primary care physician currently and over the past 12 months/Denominator: Total number of consumers	Additional Data Collection	• An item to collect data regarding all mental health consumers access to a primary care physician may be added to the CSI or incorporated into another data collection mechanism.
	5.5 Consumer / Family Perceptions of Access to	**Recommended Rating** Average items to create aggregate measure of Perceived Access to	MHSIP	• *Access to Services* – LOCATION; TIMEGOOD; HELPWANT; HELPNEED

[6] Homelessness has customarily been a challenge to measure, particularly beyond the mental health service consumer population. Should housing information about mental health service consumers remain of questionable quality, new data collection strategies (e.g., new surveys of *literal* and *functional* homelessness or shelter counts) could be suggested.

Domain	Indicator	Calculation of Measure(s)	Data Source(s)	*Dimension* – Potential Items
	Services	Services		
		Alternative Description Qualitative and quantitative analysis of several dimensions of access to services	Primary data collection	• e.g., surveys, interviews, focus groups; proposed additional data collection
6. Performance	6.1 Consumers Served Annually through CSS	**Recommended Ratio** Numerator: CSS consumers served / Denominator: CSS consumers targeted	Quarterly Progress Reports; Annual Updates	• CSS exhibit 6
	6.2 Involuntary Care	**Recommended Ratio** Numerator: Involuntary Detentions (i.e., Evaluation & Treatment, Temporary & Permanent Conservatorships) / Denominator: consumers served	Annual Report on Involuntary Detentions	• *72 hr Evaluation and Treatment (Adults, Children)* • *14 & 30-day Intensive Treatment* • *180-day Post Certification Treatment* • *Temporary & Permanent Conservatorships*
			CSI	• *County Client Number (CCN)*
		Alternate Ratio Numerator: Involuntary Detentions (i.e., Evaluation & Treatment, Temporary & Permanent Conservatorships) / Denominator: Population	Annual Report on Involuntary Detentions	• *72 hr Evaluation and Treatment (Adults, Children)* • *14 & 30-day Intensive Treatment* • *180-day Post Certification Treatment* • *Temporary & Permanent Conservatorships*
			Census Population Projection Data	• *Total Statewide Population (projected)*
	6.3 24-hour Care	**Recommended Ratios 1** Numerator: Utilization of MHRC, SNF, SH among TAY, Adults, or Older Adults/ Denominator: Total FSP TAY, Adult, Older Adults **Recommended Ratio 2** Numerator: Utilization of CTF, RCL 14, MHRC / Denominator: Total FSP children or total county child population	CSI	• *Residential Information* - Hospital, PHF, and SNF (S-20.0 – S-22.0) • *Age* -Date of Birth (C-03.0)
			DCR	• *Residential Information* – Long-TermCare_PastTwelveOccurences; Long-TermCare_PriorTwelve; NursingPhysical_PastTwelveDays; NursingPhysical_PastTwelveOccurences; NursingPhysical_PriorTwelve; Yesterday; Current; PsychiatricHospital_PastTwelveDays; PsychiatricHospital_PastTwelveOccurences; PsychiatricHospital_PriorTwelve • *Age* – Age_Group
		Alternate Count 1 Consumers in IMD, MHRC, SNF, SH by race/ethnicity	DCR	• *Residential Information* – See above • *Race/Ethnicity* – CSIRace1-5
			CSI	• *Residential Information* – See above • *Race/Ethnicity* – Race(C-10.0)
		Alternate Counts 2 Readmission to acute care facility within 30 and 180 days	DCR	• *Acute Care* – MedicalHospital_PastTwelveDays; MedicalHospital_PastTwelveOccurences; PsychiatricHospital_PastTwelveDays; PsychiatricHospital_PastTwelveOccurences; PsychiatricHospital_PriorTwelve

Domain	Indicator	Calculation of Measure(s)	Data Source(s)	*Dimension* – Potential Items
			CSI	• *Acute Care* – 24 Hour Mode of Service (S-15.0 – S-19.0)
	6.4 Appropriateness of Care	**Recommended Rating** Consumer/family perceptions of appropriateness of care	POQI	• *Appropriateness of Care* – GETALL; RECOVER; SIDEFFCT; RESPECT; GOALS; CULTURE; MEMANAGE; SELFHELP
		Alternate Descriptive 1 Average length of stay in acute care	DCR	• *Acute Care* – MedicalHospital_PastTwelveDays; MedicalHospital_PastTwelveOccurences
			CSI	• *Acute Care* – 24 Hour Mode of Service (S-15.0 – S-19.0)
		Alternate Count 2 Treatment protocols for co-morbidity	Primary data collection	• e.g., surveys, interviews, or focus groups; proposed additional data collection
	6.5 Continuity of Care	**Recommended Count** Use of crisis services	DCR	• *Emergency Care* – MenRelated; PhyRelated; ReferredBy;
			CSI	• *Emergency Care* – Hospital, PHF, and SNF (S-20.0, S-21.0, S-22.0)
		Alternate Rating 1 Reintroduction into community	DCR	• *Residential Information* –Yesterday; Current; ApartmentAlone; AssistedLiving; CommunityCare; CongregatePlacement; FosterHomeNon-relative; GroupHome; IndividualPlacement; ResidentialTreatment
			Primary data collection	• e.g., surveys, interviews, or focus groups; proposed additional data collection
		Alternate Count 2 Discharge plans	Primary data collection	• e.g., surveys, interviews, or focus groups; proposed additional data collection
	6.6 Penetration Rate	**Recommended Ratio** Numerator: CSS consumers / Denominator: high need populations	Quarterly Progress Reports; Annual Updates	• CSS exhibit 6
			California Health Interview Survey (CHIS; proposed external data source)	• *Demographic Information*
		Alternate Ratio Numerator: FSP consumers / Denominator: individuals eligible for services among targeted populations;	DCR	• *FSP Consumer* – CountyFSPID
			Primary data collection	• e.g., surveys, interviews, or focus groups; proposed additional data collection
	6.7 Wellbeing	**Recommended Rating** Improvement in functioning (current/over time);	MHSIP	• *Functioning* – DAILYPRB; CONTROL; CRISIS; BETTRFAM; BETTRSCH; MEANINGFUL; BETTRNEED; BETTRHANDLE; DOWANTS; HAPYFREND; DOTHINGS; BELONG; SUPPORT
			Primary data collection	• e.g., surveys, interviews, or focus groups; proposed additional data collection
		Recommended Rating Quality of life (current/over time)	MHSIP	• *Quality of Life* – LIFESAT; LIVRANG; PRIVACYL STAYLONG; SPARETIM; ENJOY; FUN; RELAX; SEEFAMLY; FAMCT; FAMGEN; VISIT; TIMERND; DOPEOPLE; TIMEPEOP; SEEPEOP; AMTFREND

Domain	Indicator	Calculation of Measure(s)	Data Source(s)	*Dimension* – Potential Items
	6.8 Satisfaction	**Recommended Rating** Consumer/family satisfaction with the care or service	MHSIP	• *Satisfaction* – LIKESVCS; CHOICES; RECOMMEND; STAFWILL; COMFQUEST; COMPLAIN;
7. Structure	7.1 Workforce Composition	**Recommended Ratio** Numerator: Number of staff / Denominator: Number of consumers	Primary data collection	• e.g., surveys, interviews, or focus groups; proposed additional data collection
		Alternate Ratio 1 Compare demographic composition of MH workforce to that of the consumer population	Cultural Competence Plans	• *Demographic Profile of Workforce* – Document review
		Alternate Count 2 Consumer/family member employment (i.e., number, FTE, % of workforce)	WET Plans	• *Consumer/family member employment* – Document review
	7.2 Evidence-Based/Best Practice Programs and Services	**Recommended Additional Data Collection 1** Existence of best practice core programs	Primary data collection	• e.g., surveys, interviews, or focus groups; proposed additional data collection
		Recommended Additional Data Collection 2 Fidelity of best practices to established models	CSI	• *Best Practices* – S-25.0 Evidence-Based Practices / Service Strategies 1
			Primary data collection	e.g., surveys, interviews, or focus groups; proposed additional data collection
		Alternate Additional Data Collection Receipt of best practices services/supports among consumers/families	Primary data collection	• e.g., surveys, interviews, or focus groups; proposed additional data collection
	7.3 Cultural Appropriateness of Services	**Recommended Rating** Client and family perceptions of cultural appropriateness	MHSIP	• *Cultural Appropriateness* – CULTURE
			Primary data collection	• e.g., surveys, interviews, or focus groups; proposed additional data collection
	7.4 Recovery, Wellness, and Resilience Orientation	**Recommended Additional Data Collection** Consumer, family member, and staff perceptions of recovery orientation of system and services	Recovery Oriented Systems Indicators Measure (ROSI; proposed additional data collection)	• *Recovery Orientation*
			Developing Recovery Enhancing Environments Measure (DREEM; proposed additional data collection)	• *Recovery Orientation*

Mental Health System Indicator Measurement Detail

To clarify the rational and potential utility of the measures of each indicator, this section provides detailed descriptions of the calculations summarized in the tables. This discussion is based on a thorough review of all relevant existing data and, where appropriate, some alternative data sources.

Individual-level (Consumer) Outcomes for Full Service Partnerships Measurement Detail

Consumer indicators are individual-level priority indicators designed to create greater clarity about consumers' dispositions (e.g., employment, education, housing, justice involvement) following interventions coordinated through the MHSA.[7]

Education/ Employment

1.1 Indicator: Average attendance – score per year

Rationale for measure: Dividing the number of consumers' days at school during a 9-month school year (numerator) by the total number of days during consumers' school year (denominator) will yield attendance rates for child consumers and TAY consumers 18 and younger within each county. The rates will then be averaged across all counties to identify statewide average attendance rates for each age group.

1.2 Indicator: Proportion participating in paid and unpaid employment

Rationale for measures: Employment is measured in three ways: 1) Dividing the number of employed consumers over 18 years old (numerator) by the total number of all consumers over 18 years old who are eligible for employment (denominator) will provide the statewide proportion of eligible consumers who are employed at the time of data collection. 2) Dividing the number of consumers over 18 years old who are employed for pay (numerator) by total number of consumers who are eligible for employment (denominator) will provide statewide employment-for-pay proportions. 3) Dividing the number of consumers over 18 years who are employed without pay (numerator) by total number of consumers who are eligible for employment (denominator) will provide statewide employment-without-pay proportions for TAY (18 years and older) and adult groups.

[7] In early planning, consumer indicators were designed for FSP clients only. However, RFP language for this project suggests that community activities around consumer mental health, which extend beyond FSP, are equally important to consider in MHSA reach and impact. Thus, consumer indicators may be relevant to FSP clients and non-FSP clients in the current report.

Homelessness/Housing

2.1 Indicator: Housing situation/ Index- score

Rationale for measures: To capture the variety of consumers' housing situations, five counts should be conducted. Among these, we recommend a count of days that 1) child consumers and TAY consumers under the age of 18 (considered herein as dependent youth) live in a family home annually; 2) child consumers and TAY consumers under the age of 18 live in a foster home annually; 3) TAY over 18 (legally considered adults), adult consumers, and older adults are homeless. Further, we recommend 4) a count of TAY over 18 and adults with independent residential statuses as well as 5) a count of TAY over 18, adults, and older adults who are not homeless (have any type of housing). Counts are not summative; rather they provide statewide statuses of the housing types being used by consumers, to what extent, and the level of need (homelessness).

Justice Involvement

3.1 Indicator: Justice Involvement

Rationale for measures: Number of consumer arrests within 12 months will be collected to track statewide rates that may or may not be related to consumers' mental health episodes.

Emergency Care

4.1 Indicator: Emergency Hospitalizations for Mental Health Episodes

Rationale for measures: Dividing the number of mental health episode-related hospitalizations (numerator) by the number of consumers' hospital visits within 12 months will give an indication of episode severity, crisis, and rate of acute hospitalization for mental health management/intervention. Indirectly, the ratio will give an indication of consumers' quality of life related to mental health.

Mental Health System-level Outcomes for all Consumers Measurement Detail

System-level priority indicators (related to consumer access, agency performance, agency structure) explain how operations changed or were enhanced (if at all) by the MHSA.

Access

5.1 Indicator: Demographic Profile of Consumers Served

Rationale for measure: Mean, mode, range, percentiles of age, gender, race/ethnicity of FSP population will provide demographic description of those receiving FSP services within and

across counties, and allow for comparison to populations in need (e.g., overall MH service population).

5.2 Indicator: New Consumers by Demographic Profile

Rationale for measure: Mean, mode, range, percentiles of age, gender, race/ethnicity of new consumers (i.e., less than 6 months of service receipt) will provide an understanding of who new consumers are and some indication of the populations which are being reached. Additionally, demographic description of existing consumers (i.e., more than 6 months of service receipt) will provide context for evaluating the makeup of new consumers and might give indication that historically underrepresented groups are seeking and/or receiving services.

5.3 Indicator: High Need Consumers Served

Rationale for measure: Accurate counts of homeless and unemployed consumers served through the FSP program can provide understanding of the extent to which these high need consumer groups are being served. Alternately, the numbers of homeless and unemployed among all mental health consumers will provide evidence of service to these groups overall, and provide a relative basis with which to evaluate the extent of service to high need consumer groups through FSP.

5.4 Indicator: Access to Primary Care Physician

Rationale for measure: Tracking the number of FSP consumers who access to a primary care physician will provide evidence of the extent to which FSP services may be helping to connect consumers with a medical home and the health care they need.

5.5 Indicator: Consumer / Family Perceptions of Access to Services

Rationale for measure: Aggregate ratings of consumer and family perceptions of the extent to which they are able to connect with the services they need, will provide important evidence of the accessibility of MHSA services from the perspective of the consumer.

Performance

6.1 Indicator: Consumers Served Annually through CSS

Rationale for measure: The number of consumers served annually through CSS relative to those who were targeted for service will allow for CSS service rates to be understood in the context (e.g., type and extent of need among various consumer populations) of the county in which the services were provided. In this case, grounding service rates in county context will provide a more accurate account of service levels/performance than a simple count of consumers.

6.2 Indicator: Involuntary Care

Rationale for measure: The ratio of Involuntary Detentions (i.e., Evaluation & Treatment, Temporary & Permanent Conservatorships) to consumers served will allow for greater understanding of this service relative to the consumer population. Such measures provide for more accurate evaluation of services within and between counties, as well as statewide. Alternatively, the ratio of Involuntary Detentions to various populations (i.e., adults, homeless, unemployed) will allow for evaluation of the performance of this service within and between consumer groups.

6.3 Indicator: 24-hour Care

Rationale for measure: The ratio of 24-hour care to consumer populations (i.e., TAY, Adult, Older-adult populations – MHRC, SNF, SH; Child population – CTF, RCL 14, MHRC) will provide and accurate assessment of the performance/extent of these services relative to the size of population for which they were intended. As an alternative, demographic profiles of consumer receiving these services may provide useful information regarding the consumer groups who utilize such intense services most. Another measurement options would involve counts of readmissions to acute care facilities, which can provide indication of often consumers require this type of care.

6.4 Indicator: Appropriateness of Care

Rationale for measure: Aggregate consumer and family ratings of appropriateness of care will provide an understanding of how services are perceived on average. As an alternative, average length of stay in acute care (i.e., among each age group) can provide evidence of the extent to which such intensive services are utilized, which may be more or less appropriate for different consumer groups. Another alternative would be the existence of standard protocols for treating co-morbidity. Issues such as substance abuse often co-occur with mental health issues, thus the existence of treatment protocols for co-morbidity will provide evidence of the of the existence of appropriate care for such consumers. However, this option would likely require additional data collection.

6.5 Indicator: Continuity of Care

Rationale for measure: Use of crisis services among consumers may provide evidence of the connection of such services with those they have previously or currently received. An alternative measure of the extent to which consumers have been reintroduced to the community may be created from data regarding residential status and living situation. Another option would be to assess the existence of discharge plans, which may provide evidence to the continuity of consumers' paths to recovery. However, these alternate measures may require additional data collection.

6.6 Indicator: Penetration Rate

Rationale for measure: The ratio of consumers who receive services through CSS to the number of persons considered "high need" (e.g., homeless, unemployed) will present the reach of CSS programs into various populations within each county. Alternately, the ratio of FSP consumers served to individuals eligible for services in each county would provide indication of the extent to which FSP services are reaching those they were intended for. However, this alternate measure may require additional data collection in order to establish the number of individuals eligible for FSP service within each county.

6.7 Indicator: Consumer Wellbeing

Rationale for measure: Consumer and family member aggregate ratings of improvement in functioning and quality of life will provide important measures of the perceived impact of services on average from the consumer perspective. As these measures only tap two elements of wellbeing, additional qualitative primary data collection may supplement these ratings by providing more rich understanding of how services impact consumers' wellbeing.

6.8 Indicator: Satisfaction

Rationale for measure: Consumer and family member aggregate ratings satisfaction with care or service will provide indication of consumers' perceived services on average.

Structure

7.1 Indicator: Workforce Composition

Rationale for measure: The ratio of staff to consumers will generate a measure of the size of the workforce relative to the consumer population in each county. As an alternative, comparison of the demographic makeup of the workforce and consumer populations will provide insight into how well the workforce reflects those they serve. Another option would be to consider consumer and family member employment in the mental health system (i.e., number, FTE, % of workforce), which would provide evidence of the extent to which consumers have been integrated into the service process.

7.2 Indicator: Evidence-Based/Best Practice Programs and Services

Rationale for measure: The number of evidence based or best practice programs implemented in each county would provide indication of the extent to which established high quality programs are being implemented within counties and across the state. Additionally, the extent to which evidence based or best practice programs are being implemented with fidelity would provide indication of the quality of these programs as implemented. Alternatively, the frequency with which evidence based or best practice services are received would provide important evidence of

the use these programs from the consumer perspective. However, all three measures would require additional data collection.

7.3 Indicator: Cultural Appropriateness

Rationale for measure: Consumer and family member aggregate ratings of cultural appropriateness of services will provide an important measure of the perceived adequacy of services with regard to consumers' cultural needs. However, only a single survey item directly taps cultural appropriateness of services, thus it may be necessary to augment existing data collection or consider additional data collection, in order to create a more robust measure.

7.4 Indicator: Recovery, Wellness, and Resilience Orientation

Rationale for measure: Measure of recovery, wellness, and resilience orientation, may provide evidence of the extent to which county mental health systems, and the state overall are adhering to and achieving stated values and goals. No comprehensive measure of the recovery, wellness, and resilience orientation is currently collected, however options for established measures exist (e.g., Recovery Oriented Systems Indicators Measure, Developing Recovery Enhancing Environments Measure).

Conclusions

Per our objectives, the evaluation team located items (variables) which may be used to construct recommended and alternative measures relevant to priority indicators, and outlined protocols and rational for calculating each measure. Also, where existing data was not sufficient, measures and indicators for which additional data collection may be helpful (i.e., supplementary) or necessary were noted. All measurement domains, priority performance indicators, calculation of measures (recommended and alternative), the databases or reports from which items can be drawn, and the specific items within each dataset or report were displayed in a series of tables.

Overall, this report was an important step in defining and refining the priority performance indicators to the very practical item level. While this framework for constructing indicators is comprehensive of all priority performance indicators, flexibility exists with regard to how each measure may be constructed, which is reflected in the *alternate* measure and method of calculation highlighted throughout the table. In order to refine the measure of each indicator and solidify the methods of calculation for each measure, the UCLA/EMT team must conduct a thorough data quality review.

Next Steps

Data Quality Review

As of this report, access to data listed in the report tables has not been granted. Once data associated with each item (variable) can be reviewed, we will systematically determine data

quality and completeness as well as item appropriateness for each measure/indicator using the following criteria. The data quality review will also take into account input from experts in the field who hold expertise regarding data collection and analysis generally, and specific to the data sources specified in this report. This process will drive further development of the indicator template and recommendations regarding existing and additional data collection. The criteria, also outlined in the report *Templates for Reporting Priority Indicators, Deliverable 2A*, must include:

- Adequate base rate (i.e., the rate at which an event occurs or level at which a scaled response is given on average, must not be so low as to make the indicator useless or meaningless)
- Adequate variance (i.e., values of a given measure must be sufficiently distributed through the range of the measure to support analysis)
- Validity
    - The measure is *face valid*, can conceptually and logically be said to measure what it was intended to
    - The performance measure is *internally valid* and can logically be tied to a particular program intervention or outcome
    - The indicator is *externally valid* and can logically be generalized to other populations or programs
- Reliability (i.e., the indicator is consistent over time and cases)
- Availability and completeness (i.e., indicator relevant data must be obtainable and complete for populations of interest for the period of time under study)
- Ability to be aggregated to county and state levels

Stakeholder Input

To note, the team has received strong feedback regarding the use of Annual Updates to replace Quarterly Reports. Specifically, key informants (stakeholders) perceive quarterly reports (or CSS Exhibit 6) to be less useful in providing accurate counts. These informants have also mentioned that Annual Reports might change given recent policy changes, thus exploration of an associated database might not yield the information needed to incorporate variables into this project currently. This feedback has been valuable in understanding the appropriateness and availability of data needed (and strongly suggested) to evaluate MHSA impact.

The results of a data quality review will feed naturally into the next steps the priority indicators development process. Specifically, the feedback gained through stakeholder review of the proposed priority indicator template (Deliverable 2A) and this document (Deliverable 2C), detailing procedures to construct measures of priority indicators, will be considered in light of the observed qualities of existing data. The comprehensive process by which the evaluation team will collect, respond to, and incorporate key stakeholder feedback is underway. The consideration of these two important sources of input will lead to an indicator refinement process

which takes into account the diverse needs of MHSA stakeholders overall, MHSA performance data users in particular, and the parameters of existing data.

The feedback process, described early in this report, will also provide for experts in the field and key stakeholders to contribute to the development of a plan for appropriate and rigorous analysis of all priority indicators, including the examination of MHSA impact on specific populations (e.g., age groups, race/ethnicity, economic/living situation, language, etc) and in the context of each counties' unique characteristics (e.g., demographics, funding, economic factors, etc). The feedback process, which is still being developed in collaboration with mental health organization leaders, will be detailed in a subsequent report within the process description.