Deliverable #2:
Proposed Outcomes and Indicators for
Older Adult Public Mental Health Services

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Funded by the Mental Health Services Oversight and Accountability Commission (MHSOAC)

Contract 14MHSOAC016
Submitted on June 30, 2016
Table of Contents

Project Overview........................................................................................................................................... 3
Deliverable 2 Overview ................................................................................................................................... 3
Meaningful Stakeholder Input ......................................................................................................................... 4
Methods ............................................................................................................................................................ 5
Approach .......................................................................................................................................................... 5
  Using the Values and Principles of the Older Adult System of Care .............................................................. 5
  Figure 1: Older Adult System of Care Framework .......................................................................................... 6
  Utilizing and Building on Previous Work ....................................................................................................... 7
Selecting relevant and important indicators specific to older adults ............................................................... 9
  Suicide Prevention ........................................................................................................................................ 9
  Affective Disorders ..................................................................................................................................... 9
  Cognitive Health ......................................................................................................................................... 10
  Alcohol and Substance Abuse/Misuse ........................................................................................................... 10
  Independent Living ...................................................................................................................................... 11
  Social Connections and Social Isolation ......................................................................................................... 12
  Consumer and Family Satisfaction with Mental Health Care ........................................................................... 12
  Health Services Utilization ............................................................................................................................ 13
  Continuity and Integration of Care ................................................................................................................ 14
Meaningful Stakeholder Input – Our Process ................................................................................................. 14
Results ............................................................................................................................................................... 15
  PAC Priority Level Ratings on Indicators ....................................................................................................... 15
  Final Recommended Indicators .................................................................................................................... 18
Discussion: The Benefits and Challenges of Indicator Adoption and Implementation ...................................... 19
Policy Recommendations ............................................................................................................................... 20
Limitations ......................................................................................................................................................... 22
Conclusions ....................................................................................................................................................... 22
Appendices ....................................................................................................................................................... 23
References ......................................................................................................................................................... 23
Project Overview
The UCLA Center for Health Policy Research has received a 2-year contract from the California Mental Health Services Oversight and Accountability Commission (MHSOAC) to assess the progress made in implementing a system of care in California for older adults with serious mental illness and to identify methods to further statewide progress in this area.

The assessment methods shall include examining the extent to which a representative sample of counties have systematically implemented services tailored to meet the distinctive challenges and needs faced by the older adult population, including historically disadvantaged and un/underserved older population subgroups. In addition, the assessment shall consider the extent to which the Mental Health Services Act (MHSA), passed in 2004, has facilitated or bolstered the implementation of a system of care for older adults.

The UCLA Center for Health Policy Research shall also identify and document the challenges and barriers to meeting the unique needs of this population, as well as strategies to surmount these obstacles. In order to support the State’s ability to promote improvements in the quality of mental health services for older adults, a series of indicators shall be developed that focus specifically on older adults and systems of care for older adults. These new indicators will assist future MHSOAC data strengthening and performance monitoring efforts. Lessons learned and resultant policy recommendations for improving older adult mental health programs at the State and local levels shall be developed and presented to the Commission.

A key process to support the project is assembling a statewide project advisory committee (PAC) that represents key stakeholders at the county and state level, experts in mental health and aging services, special populations and interest groups, along with consumers, caregivers and advocacy groups. The PAC will provide meaningful stakeholder input for all phases of the study.

Deliverable 2 Overview
This report presents findings for Specific Aim 2: “To identify appropriate outcomes and recommended data elements/measures/indicators that would enable the State to routinely assess the older adult system of care via ongoing performance monitoring”. The Aim 2 Research Question we addressed is “What outcomes and associated data elements/indicators should the State routinely track and evaluate in order to assess ongoing statewide progress (or lack thereof) toward implementation of a comprehensive and integrated older adult system of care?”
This deliverable, per the executed contract, shall include identified outcomes and recommended data elements/measures/indicators that would enable the State to routinely assess the older adult system of care via ongoing performance monitoring. It will also include recommendations regarding the revision or expansion of existing data collection and/or performance monitoring systems, as well as the rationale for supporting these recommendations. We involved our project’s two national mental health and older adult expert consultants, Alixe McNeill and Nancy Wilson, to assist the core project team on the indicators work. Both McNeill and Wilson have been involved in quality improvement within mental health and aging projects for decades and have provided invaluable guidance and input to the Indicators work of the project.

Meaningful Stakeholder Input
To assure meaningful stakeholder input for the project, we assembled a Project Advisory Committee (PAC). The PAC includes representatives from different geographic regions who are older adult consumers, family members/caregivers of older adults, community-based providers contracted by counties, county program administrators and other relevant county representatives, evaluation experts with experience in older adult systems of care, representatives from relevant stakeholder associations (e.g., those focused on racial/ethnic/demographic minorities, and un/under-served populations), and relevant state-level representatives (e.g., California Department of Aging) who are subject matter experts in the area of program and service delivery for older adults. The final PAC member roster with their affiliation, contact information and stakeholder representation is provided in Appendix A.

The PAC’s role is to be a sounding board and provide meaningful stakeholder input into the development and execution of the work commissioned. The PAC met on October 28 and December 9, 2015, and May 4, 2016. The Indicators project component was discussed at each meeting. PAC members have also been asked to review project products and provide input to guide project activities in between formal meetings.

The project team also assembled an OASOC Indicators Workgroup from within the PAC that included content experts in the area of services and service delivery systems for older adults with mental health needs, individuals with expertise in mental health services evaluation and in the development of indicators and performance monitoring systems for mental health services, county administrators, provider organization administrators, consumers and a representative from an advocacy organization (See Appendix B). Separate meetings with the Indicators Workgroup took place on March 15 and 31, 2016. Members of the Workgroup also reviewed and provided input about the indicators work during the full PAC meetings mentioned above.
In all, we met together 5 times with key stakeholders to discuss the indicators work and seek input. After each meeting, we incorporated feedback into our work and developed revised work products for further review. We also had two extra meetings to review our work and gain feedback from PAC member, Dr. Debbie Innes-Gomberg, Los Angeles County Mental Health, who is an evaluation expert, involved in both county and state level quality assessment evaluation activities (September 15, 2015 and March 15, 2016). Dr. Innes-Gomberg has previously served on the MHSOAC Evaluation Committee. All members of the PAC were very helpful in moving this work forward and providing valuable input that was subsequently addressed and incorporated, as appropriate.

As specified in our contract, we provided materials and reviewed the indicators work by webinar with MHSOAC leadership and staff on May 9, 2015. Additional State-level stakeholders who reviewed the indicators work included Drs. Brenda Grealish and Dionne Maxwell from the Department of Health Care Services on May 23, 2016.

Methods

Approach
Our approach to the indicators development work was based on four key principles, which are described below:

1. Use the values and principles laid out during seminal work in California for an Older Adult System of Care
2. Build on previous work in indicator development and quality improvement, both at the state and national levels, for mental health and older adults
3. Select relevant and important indicators specific to older adults with mental health problems
4. Utilize key stakeholder input and recommendations to shape the indicator recommendations

Using the Values and Principles of the Older Adult System of Care
Even prior to the passage of the Mental Health Services Act (MHSA), considerable work had been completed in outlining key components for an Older Adult System of Care (OASOC). The project team analyzed several models that were presented and discussed at the December 9, 2015 PAC meeting (See Appendix C). After this discussion, the decision to adopt the system framework put forth by the California Mental Health Directors Association (2001, with revision in 2005) for the project was made by the PAC. This framework is presented below in Figure 1:
Figure 1: Older Adult System of Care Framework

INDIVIDUAL
Healthy aging
Recovery/Resilience
Emphasis Strengths, QoL, Options & Contributions
Regain Social Roles
Holistic (BioPsycho/Soc/Spiritual)
*Consumer/Family/Caregiver/
Community Focus & Empowerment

SYSTEM
Value Diversity / Overcome Access Barriers / Targeted Outreach
Services planned with consumers /Partnerships agencies, community
Continuum of Services /Transition Pathways
Treatment of Medical, Co-morbidities and Social Problems
Ongoing Staff Training
Outcome Accountability / Research & Evaluation

1. Prevention/ MH Promotion/ Wellness
2. Entry/Access
3. Therapeutic, Recovery/Habiliative
4. Services Integrated
5. Agencies/Partnerships/Collaboratives

*Applicable both Individual & System

The above framework has guided all components of the project, and has proven very useful in our indicator development work and design of the key stakeholders interview guides being used for Deliverable 3.

**Utilizing and Building on Previous Work**

In order to capitalize and build on previous work at the state and national level, we created an indicator document database that now houses over 40 articles, outcome and performance related reports commissioned by MHSOAC, state stakeholder organization reports on performance monitoring (e.g. California Mental Health Planning Council, legislative reports), California mental health data reporting systems data dictionaries and reports, county-specific assessment tools and resources; and national mental health quality improvement materials.
The Indicator Document Database is only one segment of the full document database that includes over 150 documents in total. The full database is the basis for the general secondary review being completed for the overall project. Please see Appendix D for the Indicator Document Bibliography.

The review of all of the indicator documents yielded some critical background reports and website resources, listed here:

- Establishment of Quality Indicators for California’s Public Mental Health System: A Report to the Legislature in Response to Chapter 93, Statutes of 2000; Department of Mental Health, Stephen W. Mayberg, Ph.D., Director; March 1, 2001


- California Mental Health Planning Council, Performance Indicators for California’s Mental Health System, January, 2010

- National Behavioral Health Quality Framework (NBHQF) (SAMHSA.gov)

- National Quality Forum (NQF)

- National Quality Measures Clearinghouse (NQMC)

- National Committee for Quality Assurance (NCQA)

- National Quality Strategy (NQS) (U.S. Department of Health and Human Services)

- Health Indicators (CDC) at healthindicators@cdc.gov

The above documents and databases, along with the information from the Centers for Medicare and Medicaid Services, the California State Data Collection and Reporting System and the Client and Service Information Reporting System were instrumental in guiding the development of the recommended indicators. According to the 2010 California Mental Health Planning Council’s Indicators document,

“Stakeholders want to measure the performance of the Mental Health Services Act, which was established to transform the public mental health system into a recovery-based, client-driven, culturally competent set of mental health services. Accountability to the vision of transformation requires that performance indicators be developed to
measure progress in ameliorating the negative outcomes of mental illness (e.g., suicide, homelessness, incarceration, etc.) and achieving outcomes specified in statute for the adult system of care (ASOC) and the children’s system of care (CSOC). However, a complete set of performance indicators has not been articulated so far.

Selecting relevant and important indicators specific to older adults

The project team, including our two consultants, has completed a thorough review of relevant literature as indicated above to identify candidate indicators. Reports and literature were reviewed to identify quality indicator thresholds and appropriate population-specific goals for effective systems of mental health care as well as methods/approaches in performance monitoring that are adaptable to changing needs of diverse populations. Reports and literature were also reviewed for limitations of mental health care performance monitoring and methods for appropriately interpreting indicators as they relate to intended outcomes.

Candidate measures represent processes and outcomes that are relevant to older adult mental health. Each of the indicators recommended are critically important to older adult mental health, representing highly prevalent or predictive health concerns, as noted for each below.

Suicide Prevention

The incidence of suicide is particularly high among older, white males (30.3 suicides per 100,000). Notably, the rate of suicide in the oldest group of white males (ages 85+) is over four times higher than the nation’s overall rate of suicide\(^1\). Suicide attempts are often more lethal in older adults than in younger adults. Older people who attempt suicide are often more frail, more isolated, more likely to have a plan, and are more determined than younger adults. These factors suggest that older adults are less likely to be rescued, and are more likely to die from a suicide attempt than younger adults. Firearms are the most common means of suicide in older adults (67%), followed by poisoning (14%) and suffocation (12%).\(^1\) Of note, older adults are nearly twice as likely to use firearms as a means of suicide than are people under age 60.\(^1\) The lethality of older adult suicide attempts suggests that interventions must be aggressive and that multiple prevention methods should be used\(^2\).

Affective Disorders

Depression. Depression is not a normal part of life or aging. Depression occurs across the life course in all races, genders, and ages\(^3\). Depression is, however, the most common mental illness in late life and decreases quality of life\(^3\).

A review of the epidemiology of depression reports that 8 percent to 16 percent of community-dwelling older adults have depressive symptoms\(^4\), the prevalence of depression is substantially
higher in older adults with medical illnesses, and in those who receive services from aging service providers. For instance, a recent study found that more than one-quarter (27%) of older adults assessed by aging service providers met criteria for having current major depression and nearly one-third (31%) had clinically significant depressive symptoms. Depression is often under-recognized and under-treated in older adults.

**Anxiety.** Three to 14% of older adults meet the diagnostic criteria for an anxiety disorder, however a greater percent of older adults have clinically significant symptoms of anxiety that impact their functioning. For instance, a recent study found that more than one-quarter (27%) of aging service network care management clients have clinically significant anxiety.

Like depression, anxiety disorders are often unrecognized and undertreated in older adults. The detection and diagnosis of anxiety disorders in late life is complicated by medical comorbidity, cognitive decline, changes in life circumstances, and changes in the way that older adults report anxiety symptoms.

**Cognitive Health**

The Alzheimer’s Association reports that in 2014, 5.2 million Americans of all ages had Alzheimer’s disease, and Alzheimer’s disease accounts for an estimated 60% to 80% of all cases of dementia. Based on these figures, one could estimate that in 2014 there were 6.5 million to 8.7 million Americans with dementia.

The Patient Protection and Affordable Care Act (ACA) of 2010 established the Annual Wellness Visit (AWV) as a new Part B benefit for Medicare beneficiaries. Regulations to implement the new AWV benefit define detection of any cognitive impairment as “assessment of an individual’s cognitive function by direct observation, with due consideration of information obtained by way of patient report, concerns raised by family members, friends, caretakers or others.” The benefit of improved diagnostic processes and accompanying quality measures cannot be realized if the first step along that pathway (i.e., detection) is not addressed in a timely manner.

**Alcohol and Substance Abuse/Misuse**

Several recent community surveys have estimated that as much as 16 percent of older adults are at-risk or problem drinkers. More than 25 percent of older adults use prescription psychoactive medications that have abuse potential. Substance abuse, particularly of alcohol and prescription drugs, among adults 60 and older is one of the fastest growing health problems facing the country. Problems stemming from alcohol consumption, including interactions of alcohol with prescribed and over-the-counter drugs, far outnumber any other
substance abuse problem among older adults. Further complicating treatment of older substance abusers is the fact that they are more likely to have undiagnosed psychiatric and medical comorbidities. According to one study, 30 percent of older alcohol abusers have a primary mood disorder\textsuperscript{10}.

\textit{Medication Management.} Prescription medication misuse and abuse are growing public health problems among older adults; these problems are associated with many serious consequences, and often go unrecognized\textsuperscript{11}. Medication management programs, including medication review, are key to assisting the older adult to manage their oftentimes complicated medication regimens effectively.

\textit{Independent Living}

\textit{Functional Health Status.} With older adults, because of the prominence of multiple chronic conditions, the rule-of-thumb in health assessment is to “focus on function”. Functional assessments complement disease identification by providing information about how the disease, or other factors, may impede the ability to function in a number of domains. There are two common levels of functional assessment, the basic activities of daily living (ADL) and the instrumental activities of daily living (IADL). The “basic” activities are just that – essential activities to live independently, such as the ability to eat, bathe, toilet, transfer and dress. Whereas “instrumental” activities of daily living are more complex activities, including money management, shopping, food preparation and housekeeping. A number of valid instruments are available for assessments at both these levels\textsuperscript{12}. Over 23.7 million older adults (62\%) report limitations in activities of daily living (ADL)\textsuperscript{13}, with limitations in functional ability strongly related to increased age.

In a community study of functional levels of older adults with chronic mental illness, it was noted that 25\% of the sample had severe limitations at the ADL level, defined as regularly requiring assistance with at least four ADL’s\textsuperscript{14}. The majority (53\%) of subjects had psychiatric symptoms. The most common psychiatric diagnosis was depression (42\%). followed by schizophrenia (22\%). and bipolar illness (13\%). Twenty-nine percent of the subjects also had a serious medical problem that required medical treatment and polypharmacy and drug misuse were common among the sample.

\textit{Housing Stabilization.} The surge in older homeless people is driven largely by a single group — younger baby boomers born between 1955 and 1965. This group has made up a third of the total homeless population for several decades. The emergence of an older homeless population is creating daunting challenges for social service agencies and governments already struggling with this crisis of poverty\textsuperscript{15}. 
Homeless older adults may have “aged on the streets” or may have become homeless for the first time as an older adult. Data from a study in Boston revealed that most elderly homelessness people were newly homeless with a history of stable adult employment. Most were last housed in a private rental unit and a plurality had lived alone. The common causes of their homelessness were, in decreasing order of frequency: financial problems, mental health problems, relationship breakdown, physical health problems, and issues related to work. Newly homeless older adults require intensive prevention activities, including the opportunity to be placed into subsidized housing.

Chronically homeless older adults who age into elderly homelessness often have critical health and service needs in addition to their obvious housing needs. Homeless seniors are more likely to experience multiple medical issues at a time and often have chronic illnesses that go untreated. Substance use disorders, particularly alcoholism, are not uncommon among the elderly homeless population and are often presented alongside mental health disorders, especially among the chronically homeless population. The mental health issues of the elderly are also particularly important when examining the reasons that older people become or remain homeless. Mental illnesses associated with memory loss, for example, can affect the ability to secure housing as acquiring housing often involved multiple appointments and self-initiated persistence. Elderly chronically homeless people often require intensive service coordination such as case management.

Social Connections and Social Isolation
The health risks posed by social isolation may be particularly severe for older adults, especially as they are likely to face stressful life course transitions, health problems, and disabilities. Older adults who experience one or another aspect of social isolation are at greater risk for all-cause mortality, increased morbidity, diminished immune function, depression, and cognitive decline. However, a large body of research suggests a potentially strong correlation between perceived isolation and mental health problems, especially depression. Loneliness is a key predictor of depression among older adults, in particular. Similarly, perceived social support is more important for mental health outcomes than indicators of social connectedness, such as received support and network size. To the extent that mental health problems put individuals at risk for physical health problems, perceived isolation may affect physical health through its impact on mental health.

Consumer and Family Satisfaction with Mental Health Care
The National Behavioral Health Quality Framework (NBHQF) promotes the key concept of person or family-centered care. The NBHQF recommends measuring the dissemination and
uptake of patient- and family-centered engagement in preventive, clinical, and recovery settings. There are several recommended evaluation measures, including the Consumer Evaluation of Care: which captures family members reporting on their participation in treatment planning; and Perceptions of Care Survey (PoC) for both inpatient and outpatient care; and the Patient Assessment of Care for Chronic Conditions (PACIC) survey which measures specific actions or qualities of care and patient engagement in care. Inherent within the MHSA legislation are the core values of consumer input and engagement in services.

California utilizes the Mental Health Statistical Improvement Project (MHSIP) Consumer Survey which collects information on satisfaction with care, access to care, participation in treatment planning and quality of life. The MHSIP Survey is utilized by counties to give consumers and family members the opportunity to provide input/feedback on services for quality improvement purposes. The MHSIP is a requirement of the Substance Abuse and Mental Health Services Administration (SAMHSA) Community Mental Health Services Block Grant (MHBG) and a requirement of California W&I Code Sections 5600 -5623.5 (Bronzan-McCorquodale Act).

Health Services Utilization

The quality of the health and social services available to older adults and their caregivers affects their ability to manage chronic conditions and long-term care needs effectively. Older adults are high utilizers of health care services, predominantly due to their prevalence of chronic conditions. Approximately 80 percent of older adults have at least one chronic health condition, and approximately 60-65 percent have two or more conditions. Older adults with serious mental illness have an increased rate of mortality and are also at greater risk of receiving inadequate care, including lower quality of health care. In an analysis of Medicare claims, older adults (≥ 65) with mental illness were found to receive poorer medical care after MI than older adults without a mental disorder. The presence of psychiatric illness was associated with a 19% increase in 1-year mortality. Researchers confirm that older adults with evidence of mental disorder are less likely than younger and middle aged adults to receive mental health services and that, when they do, they are less likely to receive care from a mental health specialist.

Recent data indicate that an estimated 20.4 percent of adults aged 65 and older met criteria for a mental disorder, including dementia during the previous 12 months. The increasing diversity in the older population will affect the provision of mental health/substance use...
services, requiring training in the provision of culturally competent care in the coming decades.

Because of their coexisting physical conditions, older adults are significantly more likely to seek and accept services in primary care versus specialty mental health care settings. Older Americans underutilize mental health services for a variety of reasons, including: inadequate insurance coverage; a shortage of trained geriatric mental health providers; lack of coordination among primary care, mental health and aging service providers; stigma surrounding mental health and its treatment; denial of problems; and access barriers such as transportation.

**Continuity and Integration of Care**

Behavioral health problems—such as alcohol or medication misuse or abuse, depression, and anxiety—are prevalent in older adults, and each affects up to 15% of older adults. These problems have a substantial impact on older adults. They are associated with decreased quality of life, functioning, and treatment adherence; poor physical health; and overuse of medical services. Despite the impact of these problems, they are often undiagnosed and undertreated.

Integrated care models can improve treatment engagement and outcomes for older adults, when compared to more traditional methods for delivering behavioral health services. These models may also improve communication and coordination between primary care and behavioral health specialists, and decrease stigma associated with accessing behavioral health services.

Given improved quality of care and decreased costs, integration of behavioral and physical health fits well within models of health reform promoted within the Affordable Care Act, including: Patient-Centered Medical Homes, Accountable Care Organizations, and the Medicaid Health Home initiative.

**Meaningful Stakeholder Input – Our Process**

Recommendations for the Indicators have been developed through an iterative process, with input from the Indicators Workgroup and the PAC, and experts in the California Department of Health Care Services, as described above. We have completed 4 rounds of reviews, and after each one, have revised the working draft of the Indicator Matrix. This nominal group technique was utilized to assure key stakeholder input and solicit guidance from experts in outcome evaluation and delivery of mental health services. Prior to each discussion, stakeholders were sent a detailed Indicator Matrix draft that identified potential indicators, resources, definitions,
relationship to current data reporting/data sources, recommendations and a list of comments and suggestions from reviewers.

The study team systematically solicited and documented feedback from Indicator Workgroup members, then facilitated a group discussion of the ideas presented. The input generated through these discussions was then worked on by the project team to incorporate into a penultimate draft of the final recommendations for outcomes and data elements/measures/indicators. Between the project team meetings and the meetings with key stakeholders, we have revised the working draft of the Indicator Matrix 8 times. The penultimate draft was then presented to the PAC for review and input on May 4, 2016. As mentioned above, we also solicited input from the MHSOAC and the DHCS.

The indicators, identified based on evidence of their importance to the quality of older adult mental health, have gone through an iterative review by key stakeholders. Another opportunity for the project team to gain insight from these advisors was to ask them to share their perspectives of the relative level of importance among these indicators. In early June, we then sent the indicator list to the PAC to solicit their ratings on priority level for each potential indicator for mental health services for older adults. Each of the indicators had already been identified as important, but this last exercise to solicit key stakeholder input, provided the opportunity to rate the indicators as most to least important. The candidate list for priority voting represented the most recent set of indicators that had incorporated suggestions from reviews previously completed by the PAC.

Results

PAC Priority Level Ratings on Indicators

Of the 24 people (21 PAC Members and 3 Project Resource Persons) sent the survey, 9 completed the survey (37.5% response rate). The survey was provided online using Survey Monkey, and two reminders were sent to promote response. Several PAC members declined to vote stating that they did not feel they had the expertise to render an opinion. Respondents represented state and county-level stakeholders, including administrators, providers, advocates and consumers.

The scoring was straightforward, with the option of scoring each indicator as low (1), medium (2) or high (3) priority. The scores and the average for each indicator are presented below in Table 1. Fifteen indicators were scored in the highest priority, with 10 being scored as medium or moderate priority. Only two indicators were scored in the lowest priority of importance.
category and both related to smoking. Smoking rates are generally low in older adults (10%); however smoking rates are much higher for adults with mental illness, so this indicator was initially being considered. Comments and suggestions for indicators and measurement were also provided.

<table>
<thead>
<tr>
<th>Table 1: Results from the PAC Prioritization Survey</th>
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<tbody>
<tr>
<td>Indicator</td>
</tr>
<tr>
<td>Individual Suicide Risk Assessment²</td>
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<td>Health Screening</td>
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<tr>
<td>Depression Management</td>
</tr>
<tr>
<td>Availability of one Close Support</td>
</tr>
<tr>
<td>Depression Screening²</td>
</tr>
<tr>
<td>Cognitive Assessment²</td>
</tr>
<tr>
<td>Access to Care by Diverse and Special Populations¹</td>
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<tr>
<td>Anxiety Assessment</td>
</tr>
<tr>
<td>Medication Review¹²</td>
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<tr>
<td>Social Network (Lubben)</td>
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<tr>
<td>Consumer Rating of Care¹</td>
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<tr>
<td>Culturally and Linguistically Competent Care¹</td>
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<tr>
<td>Standard System Procedures for Suicide Risk¹</td>
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<tr>
<td>Follow up Care Post Mental Health or ER Care⁴</td>
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<td>Health Screening for Diabetes/CVD among patients with Schizophrenia</td>
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<tr>
<td>Engagement in Meaningful Activity¹</td>
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<tr>
<td>Number of ER Visits¹</td>
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Table 1: Results from the PAC Prioritization Survey

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Low=1</th>
<th>Medium=2</th>
<th>High=3</th>
<th>Average</th>
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<td>Housing Help and Stabilization¹</td>
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<td>5</td>
<td>2.33</td>
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<tr>
<td>Consumer/Family Experience of Care¹</td>
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<td>2</td>
<td>4</td>
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<tr>
<td>Number of Psychiatric Hospitalizations¹</td>
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<td>2</td>
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</table>

Key: Highest Priority = ▼ Medium Priority = △ Lowest Priority = ◆

1 = Current state reporting requirement or MHSA program regulation requirement
2 = Current CMS Meaningful Use Indicator

The cut points for scoring above are straightforward, with 2.5 and above being placed in the highest priority of importance category; scores of 2 to 2.49 in the medium priority category and scores below 2 designated into the lowest priority category. The scores are not meant to be inferential rankings.

In addition, one might wonder if there are thematic clusters or correlations among the various indicators. In the final Indicator Matrix presented in Appendix E, we do organize the indicators into themes or categories; however each indicator presents a different component of the overall category. For example, within the category of Independent Living, we have placed
Housing Help/Stabilization and Basic and Instrumental Activities of Daily Living. Though there may be some correlations among the various indicators, our viewpoint is that each indicator represents a distinct component, within the complexity of older adult mental health, and should be measured independently. Several indicators are being collected through one instrument, such as the Mental Health Statistical Improvement Project (MHSIP) consumer survey. We also indicate in Table 1, those indicators that currently have reporting requirements or are a component of the MHSA program regulations.

**Final Recommended Indicators**

In all, 24 indicators are being recommended, representing all indicators above except the two that were in the lowest priority category. We created one Social Connectedness indicator that can either be measured by a question like having the availability of one close support, or a scale like the Lubben Social Network Scale\(^{38}\). Sixteen of the recommended indicators are currently being required for State reporting, or are a designated requirement in the MHSA program component regulations. Five of the indicators have been designated for CMS Meaningful Use incentives.

In the detailed Indicator Matrix, provided as Appendix E; the indicators are organized by category, not priority. Categories include Affective Disorders (3 indicators), Suicide Prevention (2 indicators), Medication Management (1 indicator), Cognitive Health (1 indicator), Alcohol and Substance Misuse/Abuse (1 indicator), Independent Living (3 indicators), Social Connections and Social Isolation (2 indicators), Consumer/Family Satisfaction with Care (4 indicators), Continuity and Integration of Care (5 indicators), and Health Services Utilization (2 indicators), for a total of 24 indicators.

The Indicator Matrix has evolved to its present state through the iterative process described throughout this report. The components on the Matrix include the indicator, recommended tool(s) or protocol(s), the definition for the indicator, whether it relates to the individual or systems level, the quality standard source or reference, and whether it is currently a California reporting requirement or is considered a CMS Meaningful Use indicator or the National Quality Forum. The Medicare and Medicaid EHR Incentive Programs provide financial incentives for the “meaningful use” (MU) of certified EHR technology. To receive an EHR incentive payment, providers have to show that they are “meaningfully using” their certified EHR technology by meeting certain measurement thresholds that range from recording patient information as structured data to exchanging summary care records (SAMHSA.gov).
The indicators are identified for both the individual and systems levels. Many of the individual level indicators are clinical tools for assessing and monitoring care being provided to the older adult. We think these evidence-based clinical level recommendations should be considered for state oversight since they aim to promote best practice guidelines and assist counties in improving quality of care to older adults. This work, building on the evidence of quality of care, in many ways is formative. The indicators, collectively, relate to most components of the Older Adult System of Care model, as shown in Appendix F. The system of care is multifaceted, and the indicators relate to its various components.

Discussion: The Benefits and Challenges of Indicator Adoption and Implementation

As described above, none of the proposed indicators are in the “nice to know” category; all have been identified through the literature and by key stakeholders as important for older adult mental health services and system of care. Nonetheless, there will be challenges at both the state and county levels to adopt and utilize the recommended indicators.

As the number of older adults across the state of California grows, adopting indicators and having standardized measures in place for the quality of care of older adults is a priority and responsibility warranting attention and continued efforts. There are, of course, challenges to the accomplishment of this precedent-setting goal. First, the number of the indicators may be daunting to busy administrators, providers, and counties. However, 16 of the 24 recommended indicators are already required in state reporting. Many counties are already collecting others for their own purposes, although perhaps not using the recommended indicator tool or measure. In addition, some of the indicators are identified by CMS for “meaningful use”; and reimbursement is available for collecting those data, which may be an added incentive. While providers are not reimbursed for “data collection”, they are reimbursed for doing assessments and managing patient/client care. The area of care integration has also received much attention and emphasis through the Affordable Care Act and supported through CMS reimbursement expansion. Finally, counties could approach the inclusion of new indicators incrementally, perhaps starting with those identified as most important. The addition of new variables will be aided by the flexibility of the new data collection system development efforts contracted by the MHSOAC to Dr. Sarkin at UCSD.

At the State level, what indicators rise to “the top” for state level oversight has not been well described or defined. It is always necessary to balance the potential benefits for quality of care with the burden, or perceived burden, of data collection at the county level. Thus far, there has
not been any mandate for age-specific program indicators, other than some pilot work with children’s mental health services (communication with Dr. Grealish, May 23, 2016). Statewide data collection must be purposeful with clearly articulated and incentivized goals. The State is aware, perhaps not in a systematic manner, that there is a great deal of data being collected in many counties that is not required to be reported to the State, and therefore is not being shared for oversight purposes.

As a beginning, it would be essential for the State to gather systematic information from the counties as to what data elements are being collected for which programs and population groups, including for older adult services (even for older adult services within an Adult System of Care). This type of inquiry may provide essential information about the common types of data being systematically collected at the county level that might be helpful to the State. We propose that implementing both the spirit and the technical aspects of the MHSA, by having counties collect and report on indicators relating to the Older Adult System of Care, is vital to its responsibility for oversight of the MHSA.

Policy Recommendations

Based on our work completed for the development of key indicators for older adult mental health services, we identified five general recommendations for policy change listed below. These recommendations if implemented uniformly in all counties would strengthen county and state data reporting and provide monitoring tools to uniformly assess the quality of care provided to older adults.

1. At the State level, create an expanded uniform minimum data requirement for persons over 60 years of age along the continuum of older adult mental health services funded by MHSA, to include:

   a. Older adult-specific assessment and monitoring tools, programs and practices designed and tested for, or known to be effective with, older adults

   b. Longitudinal tracking systems to collect ongoing data for mental health assessment processes, treatment and follow-up care. Utilize this data to establish or enhance service quality improvement and strengthen necessary response and action to address risks identified.

   c. Attend to issues of chronically SMI adults as they become older adults to assure they receive appropriate assessments and services within the older adult systems of care.
2. Utilize data to prepare and disseminate, on a regular basis, state and county level reports, in plain language, to document, at a minimum:
   a. Numbers of older adults served by age,
   b. Differences in age categorization and racial/ethnic older adult groups served
   c. The mental health status of older adults
   d. Effectiveness of services and older adult consumer ratings of care

3. In order to provide adequate access and services for California’s growing racial and ethnic older adult population
   a. Make available assessment tools and treatment programs in multiple languages and provide translation services as needed;
   b. More fully assess the client’s experience with cultural and linguistic aspects of care by adding questions to current satisfaction surveys used with older adults (e.g., MHSIP Older Adult Satisfaction Survey)
   c. Assemble county-level multi-racial/ethnic consumer advisory groups to assure that older adults guide service delivery in a systematic way. Report (see number 2 above) to this advisory group on an annual basis

4. Establish and disseminate the resources of a state repository of evidence-based assessment tools and treatment program materials being used by counties to share with all counties and other mental health providers
   a. Document program models in use, and their effectiveness, for integrated behavioral/mental/physical health partnerships that address the special and comprehensive needs of older adults

5. In order for counties to accomplish the above recommendations, MHSA Workforce, Education and Training (WET) funds should be allocated to train all personnel, including clinicians, involved in delivering MHSA mental health care and prevention services to older adults on
   a. Aging with mental illness
   b. Late onset mental illness
c. Mental health and resiliency models for older adults

d. Use of evidence-based tools, programs or practices

e. Content relevant to cultural and ethnic diversity of older adults

Limitations
The developmental work of identifying older-adult specific indicators and outcome measures has several limitations. First, the scope of the work was limited and called for this component of the contract to identify and recommend potential indicators to assist the State in monitoring the quality of mental health services being delivered to older adults. It did not call for the creation of an implementation strategy, or an analysis of methodological clusters of the indicators, for example. As we identified above, this work is formative and has a number of steps that could potentially follow.

Second, the Indicator Component of the project was also limited by its scope, by only being able to involve key stakeholders at the State level, and within six counties of California. As described here, and in our Deliverable 1 Report, we approached the selection of counties and recruitment of stakeholders systematically to maximize representativeness and diversity of viewpoints. Still, we only have 24 people in our PAC who were integrally involved in this effort, which is a limitation given the size and diversity of the State.

An additional limitation is the lack of a systematic repository of outcome indicators by county or those required by the State. We reviewed a substantial number of reports, data dictionaries, and articles during our indicator development. However, we could have missed critical information that may then have caused us to misrepresent required data collection for older adults.

Conclusions
The indicator development component of our project embraced the spirit of key stakeholder input by utilizing the PAC fully to guide this work. PAC member involvement was substantial and provided us with rich information, and important and varied perspectives. The quality of this work was improved because of PAC, and other state level stakeholders, involvement.

Through many iterations, we finalized the Indicator Matrix with 24 recommended indicators. These indicators represent critical areas within the comprehensive Older Adult System of Care and older adult mental health services. The Matrix includes the indicator, suggested tools or
measures; definitions, resources anchored to national quality of care concepts and recommendations; in addition to noting if the indicator is currently required, regulated or considered a CMS meaningful use indicator. The indicators are organized by conceptual domains/categories that include Affective Disorders (3 indicators), Suicide Prevention (2 indicators), Medication Management (1 indicator), Cognitive Health (1 indicator), Alcohol and Substance Misuse/Abuse (1 indicator), Independent Living (3 indicators), Social Connections and Social Isolation (2 indicators), Consumer/Family Satisfaction with Care (4 indicators), Continuity and Integration of Care (5 indicators), and Health Services Utilization (2 indicators), for a total of 24 indicators.

We provide a discussion section that identifies the potential benefits and challenges of adoption and utilization of the recommended indicators. Of note, 16 of the 24 recommended indicators are either required or included in MHSA programmatic regulations at this time. Finally, we propose 5 broad policy recommendations to strengthen the oversight function of the state and improve the quality of care for older adults.

Appendices
Please see attached documents.

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