Department of Veterans Affairs

Quality Enhancement Research Initiative (QUERI)

Mental Health QUERI Center

Strategic Plan

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Structure of Strategic Plan Document

Broadening our focus has resulted in challenges in adhering to the "QUERI Instructions for Preparing and Submitting a QUERI Strategic Plan." Because Goal 1 consists of five separate focus areas, we are unable to cohesively present the supporting background and processes for each focus area consistent with the instructions. To address this challenge, we present 'MH QUERI's Goals and Processes' (normally found in Section 7) immediately after 'Clinical Focus and Scope' (Section 2), and present 'Background' (Sections 3-6) and 'Plan for Goal 1' (Section 7) for each focus area immediately thereafter. Consistent with the instructions, and building on information presented in Sections 3-6, we prioritize the SMI Health focus area within Goal 1 and concentrate particular attention to achieving Goal 1 in that area (see Focus Area Priorities, pg. 10). Additionally, because 'Significant Influences on Current Practices and Outcomes' (Section 6) overlaps across all of MH QUERI's focus areas, we identify those common influences within Section 6 of SMI Health (page 21). We further describe influences specific to each of the focus areas within Section 6 of that focus area. Following the 'Background' and 'Plan for Achieving Goal 1' for all five of the focus areas, we present MH QUERI's 'Plan for achieving Goal 2'.

Please note that in the Table of Contents we have put the instructions' section numbers in parentheses.

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1. Executive Summary

Mission Statement:

The mission of Mental Health QUERI is to improve quality of care, outcomes, and health-related quality of life for Veterans with mental health conditions by promoting research to close gaps in knowledge and implementing evidence-based practices within the Veterans Health Administration and beyond.

In prior years, Mental Health (MH) QUERI focused its implementation research portfolio and related activities on implementing evidence-based practices (EBPs) for two severe mental health disorders (depression and schizophrenia), producing substantive system impacts to improve health care for Veterans with these conditions. In response to feedback systematically elicited from our OMHS program office and clinical/operations partners through an intensive strategic planning process (as well as feedback from the QUERI Research and Methodology Committee), MH QUERI's Executive Committee has determined that it is time to expand our focus beyond individual diagnostic populations. In this updated Strategic Plan, we establish a new mission (see above) and clinical goals to identify and implement EBPs for a broader (non-disease focused) collection of high priority focus areas consistent with VHA priorities to meet the mental health needs of our nation's Veterans.

Mental Health QUERI Goals

Goal 1: Support and enhance implementation of evidence-based practices, as well as promising and emerging clinical practices that address high priority system needs, for Veterans with mental health conditions, in the following focus areas:

- SMI Health
- Primary Care Mental Health (PCMH)
- Recovery
- Posttraumatic Stress Disorder (PTSD)
- Suicide Prevention
- Disparities for special or vulnerable populations, such as women and rural dwelling Veterans

Aim 1: Identify gaps in quality of care: understand determinants of exemplary practice and successful implementation

Aim 2: Develop and evaluate implementation strategies for evidence-based, promising, and emerging practices that address high priority system needs

Aim 3: Develop and evaluate implementation strategies to promote measurement-based care

MH QUERI has established three new workgroups to develop and operationalize implementation research 'action plans' in the Goal 1 focus areas of SMI Health, PCMH, and Recovery. The goal of the **SMI Health Workgroup** is to improve wellness and physical health treatment/outcomes for Veterans with serious mental illness (SMI). The goal of the **PCMH Workgroup** is to continue our ongoing work to support and enhance implementation of primary care/mental health integration models throughout the VA. The goal of the **Recovery Workgroup** is to identify and implement evidence-based programs or practices that promote recovery for Veterans with mental illness. The MH QUERI Executive Committee currently has identified SMI Health as our highest priority focus area because of the extensive efforts devoted to this area by our investigators in response to previous strategic plans, as well as the emphasis upon which our primary partner, OMHS, has placed on this topic.

Our implementation research portfolios for PTSD and Suicide Prevention will be developed through new *coalitions* with existing VA Centers of Excellence (i.e., the National Center for PTSD and the VISN 2 Center of Excellence for Suicide Prevention at Canandaigua) and other VA partners conducting research in these areas. The goal of the **PTSD Coalition** is to identify, develop, and enhance implementation and dissemination of evidence-based practices for PTSD. The goal of the **Suicide Prevention Coalition** is to identify, develop and enhance implementation of organizational, public health, and clinical practices that are expected to decrease suicidal behaviors among Veterans.

Finally, in developing and executing their respective implementation research plans, each Workgroup and Coalition has been instructed to include projects, components of projects, or other activities that will focus on **detecting, understanding and/or reducing disparities** in mental health treatment/outcomes for female Veterans, rural-dwelling Veterans and/or other potentially vulnerable Veteran populations. Thus, identifying and addressing disparities in care as a cross-cutting issue across all Mental Health QUERI focus areas.

Goal 2: Develop and evaluate strategies that promote bi-directional partnerships for co-production of research and knowledge exchange between investigators and stakeholders,

including: consumers (Veterans); peers and family members of consumers; providers; clinical managers; VHA Operations & Management leadership; and VHA Policy & Services leadership.

Goal 2 acknowledges and affirms the value that MH QUERI places on developing, nurturing and sustaining partnerships with a diverse collection of stakeholders in defining and executing its implementation research agenda. Work conducted in association with Goal 2 will emphasize the testing of new strategies, tools and mechanisms that can support the development and maintenance of MH QUERI's partnerships with Veterans, clinicians, managers and policymakers. Initial efforts to operationalize this goal include formation of a new **Stakeholder Council** to more systematically inform MH QUERI in developing and executing our implementation research portfolio.

MH QUERI Processes

With the QUERI six-step process serving as its guiding framework for implementation research planning, MH QUERI vigorously pursues its mission to broadly implement evidence-based care for mental health disorders in VHA treatment settings. Specifically, MH QUERI works in collaboration with its Executive Committee, Workgroups, Coalitions, and investigators to:

- identify high priority clinical practices/outcomes for prevalent and burdensome mental health disorders
- identify evidence-based guidelines/recommendations for addressing priority clinical practices/outcomes
- conduct and promote research to identify key gaps in knowledge and clinical performance
- close identified performance gaps by developing, implementing and evaluating targeted improvement programs

MH QUERI addresses these overarching objectives through a diversified, yet cohesive, portfolio of ongoing and planned research projects and related activities. MH QUERI and its affiliated investigators apply state-of-the-art methods to identify key clinical performance gaps, develop targeted improvement programs that are sufficiently flexible to accommodate adaptation to local context (while remaining faithful to the supporting evidence base), and rigorously assess the effectiveness of those programs through formative and summative evaluations. Indeed, MH QUERI researchers are advancing implementation science through their innovative methodological approaches. Finally, MH QUERI actively pursues projects and activities in support of achieving our clinical goals in collaboration with VHA leadership, clinical managers, clinicians, consumers, and their families.

2. Clinical Focus and Scope

Since its inception, MH QUERI's charge of implementing research findings to improve quality and outcomes of care has focused on two prevalent and severe mental disorders; depression and schizophrenia. Our focus of these two high priority conditions has allowed us to make substantive contributions to improving the health care of Veterans. Treatment for Veterans with depression in primary care settings has been enhanced through the implementation of evidence-based collaborative care models adapted to varying clinical contexts. MH QUERI's quality improvement activities for depression include all aspects of clinical care including diagnosis, antidepressant pharmacotherapy, psychotherapy, care management, patient education to promote treatment adherence, outcomes monitoring, relapse prevention, managing depression in the presence of comorbidity, and suicide prevention. MH QUERI's other clinical focus has been on improving care for Veterans with schizophrenia. The scope of quality improvement activities in this area includes medication management, psychosocial rehabilitation, care management, patient education to promote treatment adherence, managing schizophrenia in the presence of comorbidity, suicide prevention, and implementing programs that promote recovery.

The Uniform Mental Health Services Handbook (VHA Handbook 1160.01 [UMHSH]) defines minimum clinical requirements for VHA Mental Health Services and delineates essential components of the mental health program that are to be implemented nationally, ensuring that all Veterans, wherever they obtain care in VHA, have access to needed mental health services – providing a comprehensive standard for mental health services. Additionally, recent feedback from our clinical and operations partners, the QUERI Research and Methodology (R&M) Committee, and our own Executive Committee have recommended expanding our focus beyond diagnostic populations. These factors, in addition to the emergence of a new population of OEF/OIF/OND Veterans with unique and time critical needs, support the need for MH QUERI to expand its focus beyond the two diagnoses, schizophrenia and depression, and become less disease-focused in order to build a research portfolio more closely aligned with current VA clinical priorities.

Strategic Planning Process

In FY 2009, MH QUERI leadership and the Executive Committee (EC) began a strategic planning process that incorporated feedback from the R&M Committee, MH QUERI

investigators and Patient Care Services (PCS) leaders, especially in OMHS, as well as the newly established Office of Mental Health Operations (OMHO). Based on our review of the strategic planning literature, we developed a strategic planning process that allowed us to identify new MH QUERI focus areas, create a new mission statement, goals and aims, and modify our organizational structure to support these goals and aims.

This Strategic Plan extends and formalizes collaborations with relevant research and clinical entities to facilitate achievement of broader MH QUERI goals. Operating from within the context of the clear clinical mandate of the UMHSH and the VHA Mental Health Strategic Plan, much of the work performed by MH QUERI investigators directly supports UMHSH implementation. Consequently, our strategic planning process placed an emphasis on how MH QUERI could best partner with OMHS and OMHO to further UMHSH implementation and its evaluation. Our strategic planning process occurred over the following key steps.

Learning about the current state of evidence in potential focus areas

MH QUERI's former Depression and Schizophrenia Subgroups identified potential new focus areas related to serious and prevalent conditions (posttraumatic stress disorder [PTSD], bipolar disorder), as well as clinical interventions/approaches (suicide prevention, recovery, telemedicine, care management) and populations (OEF/OIF, homeless Veterans). MH QUERI leadership invited experts in those areas (See Appendix A) to present and participate in discussions with members of the Subgroups. These presentations included condition-specific information on prevalence, incidence, cost, variation in practice, potential to improve practice, as well as potential impact of practice improvements on health outcomes. Presentations and key points from the discussions were documented and disseminated to the Subgroups for further discussion as well as to the EC to ensure full disclosure.

Documenting the current state of evidence in potential focus areas

For each of the potential focus areas presented, the information provided by the experts was supplemented by additional literature reviews and framed within the QUERI Six-Step process. These evidence summaries were augmented with a list of existing or planned MH QUERI projects, potential and existing partnerships and the degree to which the area was listed as a priority in the UMHSH and FY11-13 Mental Health Initiative Operating Plan, which provides operational objectives for the UMHSH implementation.

Eliciting feedback

The MH QUERI Coordinating Center (CC) disseminated the evidence summaries to Subgroup members and asked them to prioritize potential focus areas by means of an online survey. For each potential focus area, Subgroup members were asked to respond to 10 survey items (See Appendix A). Survey results were tabulated and findings were discussed at subsequent Subgroup meetings to identify reasons for variation in priorities across Subgroup members.

Selecting and prioritizing focus areas

Evidence summaries, survey results, and key points from the Subgroup survey discussions were disseminated to the EC members and discussed at the annual in-person meeting in September 2010. At that meeting, the EC concluded that the valuable work previously accomplished in improving the health status for patients with severe mental illness and in integrating mental health services into primary care should continue to be priorities for MH QUERI. To identify potential new focus areas, EC members utilized information they had received and selected the final list of focus areas based on 1) potential impact, 2) relationship to VHA priorities, and 3) likelihood that VA researchers with implementation science expertise (including MH-QUERI researchers) could address them effectively. The EC used a weighted voting strategy and rank-ordered the new focus areas as follows: Recovery, PTSD, and Suicide Prevention. Health disparities was also identified as an important area; however, the EC felt that disparities would be better addressed as a "cross-cutting" issue in all of the focus areas.

As described in more detail in section 7, SMI Health, Primary Care Mental Health (PCMH), and Recovery will be addressed through formal MH QUERI Workgroups. Given the existence of Centers of Excellence (e.g., NCPTSD and the VISN 2 Center of Excellence for Suicide Prevention at Canandaigua) as well as other research centers with research activities in these areas, we chose to develop implementation research portfolios in PTSD and Suicide Prevention through coalitions with other research centers ensuring that efforts provide added value and are not duplicative.

General Description of Identified Focus Areas

This section provides general descriptions of the focus areas identified through the intensive strategic planning process described above.

SMI Health

The EC identified SMI Health as a primary area of focus for the FY 2012-2015 funding period based on the strength of past, current and planned work in this area, along with MH QUERI's desire to enhance its partnership with OMHS in addressing the needs of the SMI patient population. The goal of the SMI Health Workgroup is to improve wellness and physical health treatment/outcomes for Veterans with SMI. Achieving this goal will require a dual focus on prevention and management of chronic disease in these patients. MH QUERI's work in the area of SMI health has already yielded significant impacts through the improvement of metabolic side-effect monitoring and management for Veterans taking antipsychotics (i.e., ASSIST, EQUIP2, CAMP, and AMMP projects) as well as informing the MIRECC Initiative on Antipsychotic Management Improvement (MIAMI) Project national training conference. Additionally, MH QUERI partnered with OMHS, Employee Education System (ESS), VISN 16 South Central MIRECC, and the VISN 22 Desert Pacific MIRECC in presenting two cyberseminars to train VA clinicians on improving care in this area. MH QUERI has also supported work in the area of SMI Health through its funding of Locally Initiated Projects (LIP) such as 'Understanding Disparities in Health Care for VA Patients with SMI' (PI: Amy Kilbourne, PhD), 'Management of Metabolic Side Effects of Antipsychotics in Six VISNs' (PI: Rick Owen, MD), and 'Correlates of Antipsychotic Prescribing Pathways and Clozapine Under-Utilization' (Co-PIs: Mark Meterko, PhD and Mark Bauer, MD).

MH QUERI and the SMI Health Workgroup recognize the Serious Mental Illness Treatment, Research, and Evaluation Center's (SMITREC) definition of serious mental illness, as characterized in the National Psychosis Registry (NPR): "…all Veterans diagnosed with psychosis (schizophrenia other than latent, schizoaffective disorder, bipolar disorders, and other non-organic psychoses)" and delineated by the ICD-9 codes in Appendix B.

Primary Care Mental Health (PCMH)

MH QUERI defines this focus area as the improvement of mental health care provided in the primary care setting. MH QUERI's longstanding partnership with Patient Care Services' Primary Care – Mental Health Integration (PC-MHI) Program Office has continued to flourish in informing development and support of evidence-based implementation of PC-MHI programs across the VA. MH QUERI investigators have served as faculty on quarterly educational programs, provided clinical consultation and leadership for weekly-national level support calls for care managers using the TIDES (Translating Initiatives for Depression into Effective Solutions)

program, and have continued to revise and update care management resources available VA-wide. The goal of the PCMH Workgroup is to continue work to support and enhance implementation of PC-MHI models throughout the VA. In addition, our work in this area will focus on implementing emerging evidence-based interventions within the primary care setting (e.g., brief psychotherapies and interventions for PTSD).

Recovery

The VA has made enormous advances in transforming the largest mental health system in the country towards a true recovery-oriented model. VHA's commitment to system-wide change is underscored in the UMHSH and in VHA Directive 1163, which mandates that all mental health services must be recovery oriented. This transformation affords MH QUERI and its' stakeholders many opportunities to learn from this largely unstudied national process and to aid in fully implementing an evidence-based system that will benefit all Veterans in achieving recovery without respect to diagnoses. The goal of the Recovery Workgroup is to conduct research that will inform the integration of recovery-oriented services across mental health programs to help ensure that Veterans have access to psychosocial rehabilitation and recovery services (e.g., peer support, family services, Psychosocial Rehabilitation and Recovery Centers, social skills training, therapeutic and supported employment programs). Psychosocial rehabilitation, also called psychiatric rehabilitation, is defined by the United States Psychiatric Rehabilitation Association (USPRA) as promoting "recovery, full community integration and improved quality of life for persons who have been diagnosed with any mental health condition that seriously impairs their ability to lead meaningful lives."[1] Recovery is identified as the "single most important goal" for the mental health service system in Transforming Mental Health Care in America, Federal Action Agenda: First Steps.[2] The SAMHSA national consensus statement on recovery reads: "Mental health recovery is a journey of healing and transformation enabling a person with a mental health problem to live a meaningful life in a community of his or her choice while striving to achieve his or her full potential."[3]

PTSD

As noted above MH QUERI's work in the new focus area of PTSD will be accomplished through a coalition with the National Center for PTSD (NC-PTSD), the Substance Use Disorders (SUD) QUERI and eHealth QUERI. This Coalition enables MH QUERI to expand its focus into PTSD while ensuring that efforts provide added value and are not duplicative. The long term goal of the coalition is to identify, develop, and enhance the implementation and dissemination of

evidence-based practices for PTSD among Veterans. MH QUERI, in creating the PTSD Coalition, defines PTSD as consisting of a spectrum of traumatic stress disorders consistent with the Clinical Practice Guideline (CPG) for the Management of Posttraumatic Stress[4]. Although the CPG arranges these disorders along a temporal axis, from Acute Stress Reaction, to Acute Stress Disorder, Acute PTSD, and Chronic PTSD, the majority of clinical and research work in VHA is with Chronic PTSD.

Suicide Prevention

The Suicide Prevention Coalition represents another of MH QUERI's new priority areas, where rather than forming a separate workgroup totally under the "umbrella" of MH QUERI, we have chosen to address the suicide prevention priority area through a coalition which includes investigators from the VISN 19 MIRECC, SMITREC, and the VISN 2 Center of Excellence on Suicide Prevention, as well as managers from VA Mental Health Operations. The Suicide Prevention Coalition is hosted by and embedded within the VISN 2 Center of Excellence, and is co-sponsored by MH QUERI. This Coalition enables MH QUERI to expand its focus into suicide prevention while ensuring that efforts provide added value and are not duplicative. The long term goal of the coalition is to identify, develop, and enhance the implementation of organizational, public health, and clinical practices that are expected to decrease suicidal behaviors among Veterans. Defining terms for this area is historically problematic, as there have been struggles to adopt a commonly accepted nomenclature. In order to maximize suicide prevention efforts across VA and DoD, the development and dissemination of interagency initiatives such as implementation of a standardized nomenclature and practice guidelines are critical first steps toward identifying gaps in mental health care that address Veteran suicide. In 2009 DoD/VA Health Executive Council's Joint Strategic Plan required the adoption of a standardized system of nomenclature for clinical events related to suicide, developed by the Centers for Disease Control and Prevention.

Disparities for Special or Vulnerable Populations

While MH QUERI recognizes the importance of addressing disparities for special or vulnerable populations (e.g., women and rural-dwelling Veterans) within the scope of our research, MH QUERI leadership and EC determined that disparities would be more effectively addressed as a cross-cutting theme across all MH QUERI Workgroups and Coalitions as opposed to an additional workgroup. As such, each workgroup and coalition will address disparities for special and/or vulnerable populations. The EC also recommended reviewing this approach in the future to determine if changes are needed in order to effectively address disparities.

Focus Area Priorities

Within our focus areas we have identified improving wellness and physical health care of patients with severe mental illness (SMI Health) as our highest priority. We prioritize this focus area because of the extensive efforts devoted to this area in previous strategic planning periods, as well as the emphasis upon which our primary partner, OMHS, has placed on this topic. In addition, systems redesign, notably through the realignment of primary care into Patient-Aligned Care Teams (PACT), as well as the dissemination of health behavior change and wellness programs, presents a unique opportunity to impact the delivery of health care to this vulnerable population.

PCMH represents our second highest priority area because of our past work in the area of primary care mental health, the close relationships we have developed with the PC-MHI Program Office, our integration into training and implementation activities, as well as our efforts to develop new primary care based interventions (e.g., Dr. Cully's brief CBT program and Dr. Felker's incorporation of PTSD into the TIDES care management program).

Identifying effective strategies for implementing evidence-based programs and practices that promote recovery among Veterans with mental illness is our third highest priority. We have established strong relationships with OMHS program officers in this area, and several MH QUERI investigators have conducted substantial work in this area. Thus we feel that we will be poised to fully implement an action plan in this focus area in the latter years of this strategic plan.

Though we have developed a small portfolio of projects in the focus areas of PTSD and Suicide Prevention, we view these as emerging areas that are less defined because of their recent identification, and have chosen to address these issues through coalitions with other research centers rather than formal workgroups. Thus, these are developing areas that will increase in priority as we more fully develop action plans with our coalition partners.

3. MH QUERI Goals and Processes

Goal 1

Goal 1 reflects the progress made in operationalizing the recommendations of the R&M Committee, MH QUERI leadership and the EC, and utilizing feedback from MH QUERI investigators as well as leaders from PCS, OMHS, and OMHO. This Goal will move MH QUERI beyond an emphasis on disease-focused implementation research, creating new areas of focus more closely aligned with current VA clinical priorities. We further acknowledge that with the expansion of our areas of focus, it will be necessary to operationalize systematic processes to ensure that all MH QUERI Workgroups and Coalitions address the aims of Goal 1 within their respective focus areas. The Workgroups and Coalitions have already made substantial progress in identifying the areas of emphasis that will guide their efforts and ensure fulfillment of MH QUERI's mission.

Goal 1: Support and enhance implementation of evidence-based practices as well as promising and emerging clinical practices that address high priority system needs for Veterans with mental health conditions, in the following areas:

- SMI Health
- Primary Care Mental Health
- Recovery
- Posttraumatic Stress Disorder
- Suicide Prevention
- Disparities for special or vulnerable populations, such as women and rural dwelling Veterans

Aim 1: Identify gaps in quality of care: understand determinants of exemplary practice and successful implementation

Aim 2: Develop and evaluate implementation strategies for evidence-based, promising, and emerging practices that address high priority system needs

Aim 3: Develop and evaluate implementation strategies to promote measurement-based care (i.e., monitoring individual treatment response and adjusting care as needed)

Goal 2

Goal 2 acknowledges and affirms the value that MH QUERI places on developing, nurturing and sustaining partnerships with a diverse collection of stakeholders in defining and executing its implementation research agenda. Work conducted in association with Goal 2 will emphasize the testing of new strategies, tools and mechanisms that can support the development (capacity building) and maintenance of MH QUERI's partnerships with Veterans, clinicians, managers and policy-makers. Processes that will allow us to work more closely with VA clinical managers and operations are being developed within our workgroups and will be described within subsequent sections. While our EC and Workgroups have been consistently well represented by individuals from across the VA enterprise, we recognize the additional value of creating a Stakeholder Council (SC) to more systematically inform MH QUERI in developing new projects and leveraging results from new and ongoing projects for optimal impact. We believe SC guidance and feedback will greatly enhance MH QUERI's ability to design and implement timely, sustainable system-wide change that can be supported at all levels of the VA and by Veterans themselves.

Goal 2: Develop and evaluate strategies that promote bi-directional partnerships for co-production of research and knowledge exchange between investigator's and stakeholders, including:

- Consumers (Veterans)
- Peers and family members of consumers
- Providers
- Clinical Managers
- VHA Operations & Management leadership
- VHA Policy & Services leadership

MH QUERI Processes

With the QUERI six-step process serving as its guiding framework for implementation research planning, MH QUERI vigorously pursues its mission to broadly implement evidence-based (EB) care for mental health disorders in VHA treatment settings. Specifically, MH QUERI works in collaboration with its Executive Committee, Workgroups and affiliated investigators to:

- identify high priority clinical practices/outcomes for prevalent and burdensome mental health disorders:

- identify evidence-based guidelines/recommendations/practices for addressing priority clinical practices/outcomes;
- conduct and promote research to identify key gaps in knowledge and clinical performance
- close identified performance gaps by developing, implementing and evaluating targeted improvement programs for our focus areas

MH QUERI addresses these overarching objectives through a diversified, yet cohesive, portfolio of ongoing and planned research projects and related activities. MH QUERI and its affiliated investigators apply state-of-the-art methods to identify key clinical performance gaps, develop targeted improvement programs that are sufficiently flexible to accommodate adaptation to local context (while remaining faithful to the supporting evidence base), and rigorously assess the effectiveness of those programs through formative and summative evaluations. Indeed, MH QUERI researchers are advancing implementation science through their innovative methodological approaches. Evidence-based quality improvement (EBQI) strategies used to support implementation of primary care / mental health integration models as well as facilitation strategies being tested in a number of projects, are examples of ongoing MH QUERI research that will advance the knowledge base in implementation science.

Application and Evaluation of Theory

As a standard practice, MH QUERI integrates implementation science theoretical insights into its research and strategies for implementing evidence-based care. Such an integrative approach to quality improvement is necessary given that healthcare organizations are best understood as complex adaptive systems.[5-7] A complex adaptive system is a collection of individual agents who have the freedom to act in ways that are not always totally predictable, and whose actions are interconnected such that one agent's actions can sometimes dramatically change the context for other agents.[6] As complex adaptive systems, healthcare organizations demonstrate a fundamental propensity to maintain the status quo (i.e., 'organizational inertia'). Influencing meaningful quality improvement within such systems generally requires multifaceted intervention strategies that address multiple levels of influence on targeted behaviors inside, and sometimes outside, the organization.[8] Accordingly, a 'multi-theoretical' approach to implementation that considers and integrates conceptual insights from complexity science [5-7] and organizational,[9-12] interpersonal[13,14] and individual[15,16] behavior

change theories can be valuable in guiding and informing change efforts in complex healthcare organizations.[17]

In MH QUERI projects, the conceptual framework selected or developed as the basis for implementing change in clinical practice typically reflects hypothesized (through literature review) and/or identified (through formative evaluation[18,19]) structural/contextual determinants of current practice, characteristics of the primary target of the change effort (e.g., system, team, clinician, patient), and other factors; along with the relative complexity of the practice innovation to be implemented.[13] MH QUERI investigators draw upon a range of theoretical models and interdisciplinary knowledge in designing, implementing and evaluating interventions to implement EB practices for mental health disorders. Greenhalgh et al.[20] have proposed a "unifying conceptual model" of multilevel determinants to consider when implementing innovations in healthcare organizations; a model which is highly analogous to other conceptual models guiding current MH QUERI research projects.[10,11] Greenhalgh et al. suggest that their model should not be viewed as a "prescriptive formula" for implementing innovation, but rather is intended to serve as a "memory aide" for researchers in considering the various aspects of a complex situation (and their interactions) that may impact current practice and/or inform the selection of intervention strategies. This is consistent with the MH QUERI approach. Reliance upon a single conceptual model for understanding determinants of current practice and informing change strategies could be limiting and might restrict the range of multidisciplinary knowledge and methods that can be brought to bear in implementing EB practices.

MH QUERI complements its 'action-oriented' application of theory to improve clinical practice with rigorous formative and summative evaluations (incorporating qualitative and quantitative methods) to test the validity of hypothesized relationships between theoretical constructs and innovation adoption. MH QUERI investigators have authored and collaborated with other implementation researchers to publish several papers that relate to the application and evaluation of theory and theory-driven change strategies in quality improvement initiatives.[17,18,21-24]

Collaborations/Networking

MH QUERI complements its research portfolio with dedicated efforts to develop, nurture and sustain collaborative relationships with key VHA programs, organizational entities, clinical managers and clinicians that influence targeted clinical practices for mental health. ***MH QUERI***

places great value on collaborating with key stakeholders to advance its implementation research agenda and achieve mutually desired goals. Effective social networking is essential to achieving widespread adoption of innovation in health care, and implementation researchers are encouraged to identify and support the key entities, social networks and opinion leaders in healthcare organizations that influence current practice.[6] Establishing and sustaining such collaborative relationships with influential VHA programs and stakeholders to facilitate system-wide adoption of evidence-based treatment practices for mental health conditions is a focal MH QUERI activity.

4. MH QUERI Focus Areas - Background (Sections 3-6) and Plan for Goal 1 (Section 7)

Goal 1: Support and enhance implementation of evidence-based practices as well as promising and emerging clinical practices that address high priority system needs, for Veterans with mental health conditions, in the following focus areas:

SMI Health

Significance and Consequences (3) – SMI Health

Serious mental illnesses (SMI) are prevalent and costly in the VHA with significant impacts on patient safety, morbidity and mortality. Twenty-four per cent of the VHA patient population has an SMI diagnosis. In FY09, VHA provided medical and psychiatric care for almost 235,000 patients with psychosis (e.g., schizophrenia, bipolar disorder), at a cost of about $5.3 billion.[25] Patients with SMI experience a number of barriers to optimal outcomes, notably poor health behaviors, medication side-effects, and fragmentation of physical and mental health care, leading to diminished function, and a greater risk of premature death than the general population.[26,27] There is also evidence that patients with SMI have higher rates of medical comorbidities;[28] have higher mortality rates, especially from cardiovascular disease; and that there are large numbers who do not receive adequate medical care.[29,30] Recent studies suggest gaps in quality medical care for Veterans with SMI. For example, medical conditions are under-recognized in patients with SMI [31], and only half of providers discuss diet and/or exercise with these patients.[32] In a recent analysis of national VA data, inadequate physical activity led to a 66% increased risk of CVD-related mortality in VA patients with SMI, controlling for BMI and CVD risk factors.[33] Quality of medical care is also suboptimal, particularly for care that requires coordination across different provider types (e.g., lab monitoring) and does not adhere to evidence- or expert consensus-based recommendations (see Morden et al., 2010[34] and Kilbourne et al., 2008[35]).

The VA is undergoing two major quality improvement initiatives: the implementation of Patient-Aligned Care Teams (PACT), which involves enhanced access and continuity of care based on Chronic Care Model (CCM) principles, and dissemination of behavioral medicine programs such as the Health and Disease Prevention Program (HPDP). However, to date these programs have not been fully adapted to address gaps in quality or outcomes of care for Veterans with SMI. For many patients with SMI, the principal “health home” may be in a mental health specialty clinic, while some patients may prefer to receive general medical services care in

primary care settings. Nonetheless, many primary care providers may not have the adequate time or training to coordinate all aspects of care for patients with SMI. Although VHA leaders have considered needs of persons with SMI in the context of the PACT model, the model has not adequately addressed care coordination for persons with SMI. There is not clear guidance for the field about the optimal location or configuration of the patient-centered medical home for these patients.

Treatment factors such as medication side effects are also major contributors to CVD in patients with SMI. The majority of patients with SMI (62.5%) receive one or more prescriptions for oral antipsychotics. Of those treated with antipsychotics, 91.1% were prescribed a second-generation antipsychotic (SGA). Unfortunately, treatment with many SGAs is associated with adverse metabolic side effects such as weight gain, diabetes, and hyperlipidemia [36-40], yet many Veterans with SMI do not receive recommended cardiometabolic monitoring tests.[40-44] In addition to treatment-emergent adverse effects, patients with serious mental illnesses such as schizophrenia have greater prevalence of obesity (42%)[45,46] and diabetes (13%)[47] than the general population.

Moreover, there is a paucity of research on implementation of health behavior change programs to address individual-level barriers to optimal outcomes. HPDP is developing and disseminating behavioral medicine programs to promote healthy lifestyles including physical activity, notably through Health Behavior Coordinators at each VA Medical Center. However, these programs have not been adapted for patients with SMI, who face unique barriers to health behavior change because of social isolation, and psychiatric symptom and side effect burden.

Overall, failure to address these multilevel system, treatment, and individual barriers and risk factors can lead to increased risk of mortality due to CVD and diabetes among patients with SMI. Clearly, implementation strategies are needed to support use of evidence-based recommendations and practices that reduce morbidity, promote wellness, and address patient safety concerns in this vulnerable patient population.

Treatment/Management Evidence Base (4) – SMI Health

System Factors

Comprehensive care models are urgently needed to address the multilevel risk factors for poor physical health treatment and outcomes faced by Veterans with SMI. The current evidence

base for the management of these risk factors has centered around co-located medical care models and monitoring of cardiometabolic side effects. A recently completed systematic review by HSR&D and MH QUERI investigators[48] found that four RCTs of co-located or collaborative medical care management showed improved medical outcomes for patients with SMI. Critical elements of these integrated care models included co-located medical providers, collaborative care management, and information systems support for measurement-based care.

Treatment Factors

Cardiometabolic Management: A key component of effective integrated medical and psychiatric care is monitoring of medical problems arising from psychotropic medications. For patients taking antipsychotic medications, the CPG for Psychoses[49] and the VA/DoD CPG for Bipolar Disorder[50] (released 2010) recommends regular monitoring of weight, BMI, waist circumference, blood pressure, plasma glucose and fasting lipids [Strength of Evidence 'A'][51] because of the risk these medications have on weight gain and glucose intolerance. These recommendations were originally crafted at the MH QUERI-sponsored Summit on the Pharmacotherapy of Schizophrenia in 2002 as well as a MH QUERI-led expert panel convened in 2007 to review evidence and make recommendations about management of metabolic side effects of antipsychotics, given that patients with psychosis may represent a special population for clinical management. As a result of these activities, in collaboration with OMHS, MH QUERI investigators are leading a national initiative to disseminate these guideline recommendations and support their implementation (the MIAMI Project), since 2009.

Individual Factors

Behavior Change: Recent research including emerging studies by MH QUERI investigators has suggested that lifestyle interventions promoting weight loss and physical activity can effectively reduce CVD risk factors in patients with schizophrenia.[52] However, VA health behavior programs have primarily been implemented in primary care settings, even though most VA patients with SMI spend a disproportionate amount of clinical time in mental health specialty settings.

Current Practices and Quality/Outcome Gaps (5) – SMI Health

System Factors

Recent observational studies by MH QUERI investigators[53] suggest that co-located medical services in VA mental health programs are associated with improved processes of care nationally, yet only 10% of VA mental health programs have co-located medical provider teams. It is less clear if these programs include the critical elements of collocated collaborative care.

Treatment Factors

Findings from a MH QUERI study implementing cardiometabolic performance measures concluded that while the majority of VA patients on atypical antipsychotics received a baseline weight assessment (76%), only about half received adequate follow-up assessment, with even lower rates for recommended follow-up of plasma glucose and lipids (e.g., 53%, 38%, and 23%, respectively). The December 2007 Office of the Inspector General (OIG) report examined the extent of metabolic monitoring and management for 589 patients on atypical antipsychotics for ≥90 days.[54] Using minimum necessary standards of care, (e.g., any monitoring or management in a one-year period for patients taking antipsychotics, not tied to a new prescription) levels of monitoring rates described in the OIG report were higher than in other studies (e.g., 88% of patients had an FPG test in the past year). However, of 17% of patients with elevated glucose in the past three years, only 49% had documented management of these conditions. The OIG report concluded that there was an urgent need not only to continue monitoring of cardiometabolic risk factors, but also to improve ongoing management of these CVD risk factors when present. System-level barriers to cardiometabolic monitoring reflect barriers to integrated care in general, including: (a) lack of mechanisms, structural resources or staff to ensure side effect monitoring and follow-up care; (b) perceived limitations and lack of training in existing clinical reminders; and (c) coordination with other service lines, including pharmacy.

Individual Factors

There is a dearth of research showing effectiveness of behavioral interventions for persons with SMI as well. Most lifestyle interventions have been tested in small, select samples[55] or required intensive diet or exercise changes. Currently studies evaluating a weight loss program in VA based on the MOVE initiative are ongoing.

Overall, there is a lack of a comprehensive strategy that addresses these three barriers (system, treatment, individual) through an integrated medical care strategy, adequate metabolic risk monitoring, and health behavior change programs.

Significant Influences on Current Practices and Outcomes (6) – All Focus Areas

VHA Influences on Practices/Outcomes

VHA Clinical Practice Guidelines for prevalent and disabling mental health disorders represent significant influences on current practices and outcomes in the MH QUERI focus areas as noted in Section 5. Of course, the VA Uniform Mental Health Services Handbook (VHA Handbook 1160.01) and OMHO's 'FY11-13 Mental Health Initiative Operating Plan' are major influences on clinical practices and outcomes in MH QUERI focus areas, as well. MH QUERI also recognizes the important influence of key VA clinical leadership in our efforts to develop and implement innovative approaches to facilitate broad adoption of these guidelines. Their influence and support for implementation of evidence-based practices at all levels of VHA cannot be understated. These offices include, but certainly are not limited to;

- Office of Patient Care Services
- Office of Mental Health Services
- Mental Health Operations (10NC5)
- Office of Primary Care
- Primary Care Operations (10NC3)
- Nursing Services (10A1)
- Office of Quality, Safety and Value (10AA4)
- Office of Rural Health (10NC9)
- VA Office of Telehealth Services
- National Center for Health Promotion and Disease Prevention
- VISN Mental Health Liaisons or Product Line Managers
- VAMC Mental Health Chiefs
- Network Directors (10N1-10N23)
- VISN Chief Medical Officers
- Quality Management Officers
- Employee Education System (EES)
- Office of Informatics and Analytics (10P2)

National programs reporting to the Office of Mental Health Services also influence current practices and outcomes within our proposed focus areas. These programs include national

mental health evaluation centers; Serious Mental Illness Treatment Resource and Evaluation Center (SMITREC) and Northeast Program Evaluation Center (NEPEC); 10 Mental Illness Research, Education and Clinical Centers (MIRECCs); and the National Center on Homelessness among Veterans. Another national group that exerts significant influence on MH practice includes the Committee on Care of Veterans with Serious Mental Illness (SMI Committee).

Several OMHS and OMHO initiatives directly influence current practice as well as MH QUERI activities. These include the OMHO Mental Health Information System, which provides the basis from which implementation of the Uniform Mental Health Services Handbook can be tracked and the goal of 95% implementation of the UMHSH across each network can be monitored. Dr. Kirchner is currently working directly with OMHO in a program in which staff work directly with VISN mental health leadership to identify the areas in which they have not achieved 95% implementation of the UMHSH and then work with individual sites to accomplish this target. In response to the needs identified in the VA/DoD Mental Health Care Summit, VA and DoD are developing an Integrated Mental Health Strategy (IMHS) composed of several task groups. Dr. Kirchner is directly involved with the task group also, and is charged with identifying implementation strategies to facilitate rapid translation of research into practice. The overall outcome of this effort will directly influence how VA and DoD can better align their services and care delivery models.

Non-VHA Influences on Practices/Outcomes

Important non-VA sources of influence on clinical practices include the American Psychiatric Association CPGs, the Depression Patient Outcomes Research Team (PORT), and the Schizophrenia PORT. Recent updates in clinical practice guideline recommendations for schizophrenia by VHA, APA and PORT are such that recommendations for EB care are converging among these key sources of influence. Relevant national implementation research efforts that impact on current practices include the national Demonstration Program of medical disease management sponsored by SAMHSA, the National Council on Behavioral Health, and the Texas Medication Algorithm Project. MH QUERI EC members are closely linked to most of these initiatives, and MH QUERI's work is informed by their findings.

Significant Influences on Current Practices and Outcomes (6) – SMI Health

In addition to the VHA influences described above, additional VHA influences on current practices and outcomes for **SMI Health** include:

- Additional clinical practice guidelines (e.g., diabetes mellitus, obesity, dyslipidemia), influencing metabolic monitoring
- OMHS support for the MIAMI project, providing a policy platform from which quality improvement efforts in metabolic side effect monitoring can be supported
- VISN 21-22 Academic Detailing Program, supported by OMHS and with which the SMI Health Workgroup is collaborating
- Integration of PACT models

Plan for Achieving Goal 1 (7a): SMI Health

For SMI Health, our focus has been on implementation of strategies that address multi-level barriers to optimize physical health treatment/outcomes in this group, including system (e.g., integrated care), treatment (cardiometabolic management), and individual (e.g., health behavior change) factors. There is an urgent need in VHA to develop a comprehensive implementation strategy to address these barriers and improve wellness and physical health treatment/outcomes for Veterans with SMI.

The SMI Health Workgroup within MH QUERI is one of the only VA groups to specifically focus on improving care and addressing these multilevel barriers to optimal outcomes for Veterans with SMI. The purpose of the SMI Health Workgroup is to develop an implementation research agenda and related action plan (see below) to promote wellness and improve physical health treatment and outcomes for Veterans with serious mental illness (SMI) that address the above-mentioned multilevel barriers (system, treatment, individual). To accomplish this overall purpose, the SMI Health Workgroup proposes to conduct projects and other partnership activities in two coordinated emphases: 1) Preventive Care/Wellness, and 2) Disease & Medication Management.

In addition, based on requests by our operations and management partners, we have identified three cross-cutting emphases for SMI Health that apply across projects:

- Develop and implement a communication strategy (e.g., research summary report template, briefing process), to rapidly disseminate findings to VA Central Office Stakeholders.

- Help inform current initiatives around developing integrated medical care models for Veterans with SMI
- Inform estimates of mental health provider workload and value, and subsequent implementation of evidence-based practices and policies

The projects and related activities described within the Action Plan in Appendix D constitute the Workgroup's plans to achieve its above-stated purpose. The SMI Health Workgroup Action Plan, as well as the action plans of other MHQ workgroups (see Appendix D), is a 'living' document that is subject to continuous revision and update to ensure flexibility and adaptability to new circumstances and/or emerging priorities within the VA that are relevant to the Workgroup's purpose. Next, we provide select examples of how ongoing and planned SMI Health projects will help us achieve Goal 1 aims.

Goal 1: Support and enhance implementation of evidence-based practices as well as promising and emerging clinical practices that address high priority system needs for Veterans with mental health conditions.

Aim 1: Identify gaps in quality of care: understand determinants of exemplary practice and successful implementation

The SMI Health Workgroup projects described below (and others) are conducting observational studies, formative research, formative evaluation and process evaluations that will identify gaps in care and determinants of current practice that can be used to guide and inform Aim 2 activities. For example, Dr. Kilbourne is using VA EPRP and SMITREC National Psychosis Registry data to assess mutable organization- and patient-level factors that may contribute to differences in quality of physical health care for Veterans with SMI. Dr. Owen is examining factors that influence cardiometabolic side effect monitoring and management for Veterans taking antipsychotics across six VISNs. In terms of reducing inappropriate or inefficient practices, Dr. Hudson's new RRP will: 1) develop appropriateness criteria for identifying clinically justifiable off-label use of antipsychotics, 2) estimate the proportion of off-label antipsychotic use that is clinically justifiable and identify factors associated with non-justifiable off-label use, and 3) identify, in partnership with key stakeholders, QI interventions or policy approaches that are likely to be feasible across the VA to reduce non-justifiable off-label antipsychotic prescribing.

Aim 2: Develop and evaluate implementation strategies for evidence-based, promising, and emerging practices that address high priority system needs

Given the reorganization of VA primary care, the SMI Health Workgroup identified the development of evidence-based primary care delivery models for Veterans with SMI as a primary activity. To this end, the Workgroup has developed a suite of projects that will use coordinated measures and leverage ongoing collaboration among investigators throughout their conduct. These include: 1) Dr. Kilbourne's project to extend the reach and potential impact of the Life Goals Collaborative Care psychosocial intervention (developed for patients with bipolar disorder) by adapting and testing its feasibility for a broader SMI patient population to reduce risk factors for cardiovascular disease: 2) Dr. Goldberg's and Young's efforts to tailor health behavior change strategies such as MOVE for Veterans with SMI, and 3) Drs. Young and Cohen's proposed SDP (submitted September 2011) to implement the PACT care model in specialty mental health and evaluate its effect on the quality of healthcare, treatment costs, and outcomes for Veterans with SMI. In addition, Dr. Owen's AMMP SDP is testing evidence-based quality improvement (EBQI) and external facilitation strategies to enhance adoption and sustained implementation of MIAMI Project tools/resources to improve cardiometabolic side effect monitoring. These and other Aim 2 projects will aid the Workgroup in achieving its above stated purpose to promote wellness and improve physical health treatment/outcomes for Veterans with SMI.

Aim 3: Develop and evaluate implementation strategies to promote measurement-based care (i.e., monitoring individual treatment response and adjusting care as needed)

Drs. Young and Lysell (EC member and OMHS National Director, Informatics, respectively) are partnering with OI&A to integrate Dr. Young's web-based, computer-assisted Patient Assessment System (PAS) into the VistA Mental Health Package. OMHS is interested in widely deploying PAS to collect outcomes data, with initial implementation envisioned in mental health treatment settings. In addition, Dr. Kilbourne's evaluation of the OMHS Directive to promote re-engagement services among Veterans with SMI who have dropped out of care and the development of a reporting tool and dashboard may serve as a population-based panel management template that bridge ongoing efforts around recovery and systems redesign.

Anticipated Key Impacts (7b): SMI Health

Aim 1-3 projects will inform OMHS and OMHO policy concerning optimal healthcare delivery mechanisms for primary care in SMI patient populations. For example, findings from these collective studies will inform the types of integrated medical care models (e.g., PACT, collaborative care, self-management) that are most appropriate for different individual needs and system capacities. This workgroup will also evaluate the implementation and impact of kiosk systems for routine collection of outcomes data to support measurement-based care of Veterans with SMI. SMI Health Workgroup projects will also develop strategies and tools to support and enhance implementation of programs and practices that promote wellness and improve physical health treatment and outcomes (primarily in the area of reducing cardiometabolic risk) for Veterans with SMI, such as practical measures to assess the uptake of cardiometabolic monitoring and management. The SMI Health Workgroup will leverage existing partnerships with OMHS and other VA leaders to facilitate transfer and spread of innovative tools and strategies as they are validated through rigorous evaluation. The MIAMI Project represents a model for transfer of such technologies from earlier MH QUERI research. The 'Analytic Framework' in Appendix C illustrates the pathway through which ongoing and planned MH QUERI projects/activities will achieve the anticipated key impacts for SMI Health, our highest priority focus area.

Primary Partners (7c): SMI Health

MH QUERI benefits greatly from partnerships with a diverse group of stakeholders in addressing the SMI Health Workgroup's purpose. MH QUERI Coordinators and SMI Health Workgroup leaders met with OMHS and OMHO leaders (Drs. J. Burk, D. Carroll, M. Cody, L. Lehmann, A. Pomerantz, M. Schohn, and L. Wilkenfeld) in May 2011 to obtain their input and inform our strategic direction in this area. A number of issues were discussed. First, VACO leadership wanted more information on how integrated medical-mental health care for SMI should be implemented and to what extent one model will effectively serve all patients. The need to coordinate with primary care was seen as a major focus, as mental health dollars were no longer "fenced in" and because of increasing demands for mental health services in primary care. There is increasing discussion of the effectiveness of separate "SMI PACTs" that would address some of the system-level barriers while promoting recovery (see O'Toole, 2011[56]). In addition, the VA is investing in behavioral medicine initiatives, yet it is unclear if these programs are effective for patients with SMI, who face additional barriers to self-management. VA mental health outpatient clinics are transforming into recovery-oriented programs, and there is a

growing need to capture workload and implement measurement-based care. Notably, MH QUERI has conducted several briefings with VA Senior Leadership on findings related to co-located medical care and cardiometabolic management for Veterans with SMI, resulting in the development of priority goals in these areas. Finally, SMI Health has the opportunity to inform which treatment models work best given the emerging interest in medical home models for SMI under Medicaid (Section 2703 of the Affordable Care Act).

SMI Health projects typically also involve partnerships with VISN and VAMC leaders, front-line providers, and Veterans. OMHS, EES, the VISN 16 and 22 MIRECCs, and CIDER have been key partners in MIAMI Project activities to implement Atypical Antipsychotic Workgroup recommendations for improving monitoring for metabolic side effects of antipsychotics – including establishment of a VA Intranet site where implementation tools/materials can be accessed (http://vaww.mirecc.va.gov/miamiproject/), organization of a national VA training conference to provide training for VA mental health and primary care leaders and clinicians, and delivery of two cyberseminars on MIAMI Project objectives and how to access related QI resources. Further, Dr. Kilbourne is partnering with the National Center for Health Promotion and Disease Prevention, the VA External Peer Review Program (EPRP), and SMITREC on two ongoing projects. These are only select examples of ongoing partnership activities to address SMI Health objectives.

Implementation Science Contribution (7d): SMI Health

Recently completed and ongoing SMI Health SDPs are testing EBQI techniques to obtain stakeholder input in adapting and implementing EBPs, applying established implementation models such as Replicating Effective Programs (e.g., SMI ReEngage initiative, Life Goals Collaborative Care [57]), using formative evaluation to identify and address contextual barriers/facilitators to uptake and sustained use of EBPs, and testing external facilitation strategies to enhance uptake of EBPs. Further, Dr. Owen and Implementation Research Coordinator (IRC) Jeff Smith are collaborating with Dr. Helfrich in IHD QUERI on his 'ORCA' project to assess psychometric properties of the Organizational Readiness to Change Assessment (based on the PARIHS implementation science framework), including psychometric testing of items assessing contextual factors as well as characteristics and roles of local stakeholders in facilitating interventions (internal facilitation).

Cross-QUERI Contribution (7e): SMI Health

Dr. Helfrich's ORCA project (see above) represents a cross-QUERI collaboration of investigators from IHD, MH, and SUD QUERIs. In addition, through teleconferences and/or in-person meetings, MH QUERI Coordinators and investigators dialogue with Diabetes QUERI leadership to ensure that work to improve metabolic side effect monitoring and management for Veterans with SMI is complementary and not redundant to their strategic goals. Further, Dr. Owen (Co-Chair of the SMI Health Workgroup) is a member of the Diabetes QUERI EC.

Disparities (7f): SMI Health

One of the most glaring health outcomes disparities in Veterans with SMI is evidence of premature death compared to those without SMI. Dr. Kilbourne's new LIP (D-SMI) is using VA EPRP and SMITREC National Psychosis Registry data to assess mutable organization- and patient-level factors that may contribute to differences in quality of health care for Veterans with SMI. In addition, Dr. Owen's MME-A project showed that females started on new antipsychotics were less likely to have primary care visits following elevated LDL, elevated glucose/HgbA1c, or weight gain. Results from these projects will inform subsequent Aim 2 projects to reduce identified disparities pertaining to SMI Health.

Data Development, Implementation and Evaluation (7g): SMI Health

As noted above, Dr. Owen is collecting and analyzing data from six VISNs to identify factors that influence cardiometabolic side effect monitoring and management for Veterans taking antipsychotics. MH QUERI is also fortunate to have collaborations with the Office of Mental Health Operations Evaluation Centers (e.g., SMITREC leaders Drs. Blow and Kilbourne) that afford opportunities to apply and examine quality indicators developed for the MIAMI Project, and to leverage data available through the National Patient Care Database, National Psychosis Registry and the National Depression Registry.

Health Information Technology (HIT) Development, Implementation and Evaluation (7h): SMI Health

As noted above, Drs. Young and Lysell are partnering with OI&A to integrate Dr. Young's web-based, computer-assisted Patient Assessment System (PAS) into the VistA Mental Health Package. Also, VistA computer routines developed in Dr. Owen's earlier SDP for extracting and reporting weekly provider-specific data to sites on antipsychotic side effect monitoring have been approved as Class III software and are being adapted for use in the MIAMI and AMMP projects.

Primary Care Mental Health (PCMH)

Significance and Consequences (3): PCMH

It is estimated that 22% of patients seen in primary care have either a mental health disorder (i.e., major depressive, generalized anxiety, obsessive-compulsive, panic) or suffer from alcohol abuse or dependence.[58] Mental Health disorders commonly presenting in the primary care setting include depression, with an estimated point prevalence of 6 -10%.[59,60] and anxiety disorders, with a point prevalence of up to 19.5% (PTSD- 8.6%).[61] In addition, these conditions frequently co-occur with each other, with an alcohol or other substance use disorder, or with a chronic medical condition. Depression and chronic pain are highly prevalent in primary care and co-occur at rates of 30-50%.[62] Bair and colleagues (2003)[62] identified that a mean prevalence of 27% of patients with chronic pain have comorbid depression, whereas 65% of patients with depression have comorbid chronic pain. Findings suggest that comorbid pain and depression should be treated concurrently and early in their course to increase the likelihood of achieving improved outcomes for both conditions.[63,64]

Over half of depression care in the U.S. occurs in the offices of family practitioners, general internists, and other general medical providers, while only about a fifth of depression-related care occurs in specialty mental health care settings.[65,66] Evidence indicates that seven percent of VA patients have a depression diagnosis[67,68] and veterans with depression account for 14.3% of total VA healthcare costs.[69] In a review of the literature, the modal prevalence of recent or current suicidal ideation in primary care settings, including VA samples, was found to be 2.4-3.3%.[70] The proportion of patients with recent suicidal ideation is substantially higher in patients who have screened positive for depression and even higher in patients who have a depressive disorder, with estimates ranging from 20% to more than 50%.[70-73] Additionally, Sareen et al. (2005)[74] demonstrated that a preexisting anxiety disorder is an independent risk factor for both suicide ideation and attempts.

Treatment/Management Evidence Base (4): PCMH

Research shows that a range of cost-effective treatments which have been shown to improve patient outcomes for depression are available for implementation in primary care.[75] Effective treatment can reduce and/or eliminate depression symptoms,[76] improve health-related quality of life,[77] and improve occupational performance and productivity.[78-81] Additional research has shown that multifaceted, guideline-driven initiatives to improve the quality of depression care can result in improved symptoms and symptom-related quality of life for those affected.[82-85]

Though less thoroughly researched, recent work from non-VA primary care settings has shown similar findings in terms of treatment response for anxiety disorders that are provided within the primary care setting[86] even in patients with comorbid medical illness.[87]

VHA has developed clinical practice guidelines that summarize evidence-based treatment for depression.[88] The VHA guidelines have been widely disseminated throughout the VHA system and include modules with specific recommendations for depression treatment provided in primary care, outpatient mental health specialty, and inpatient mental health specialty settings. Adoption of the VHA depression treatment guidelines has been a national performance requirement in all Veterans Integrated Service Networks (VISNs), and MH QUERI actively seeks to facilitate the adoption of these best practices through its projects and collaborations with primary care and mental health leaders/clinicians.

While VHA does not have guidelines that specifically address the treatment of anxiety disorders other than PTSD[4,89], there are American Psychiatric Association (APA) guidelines for the treatment of Panic Disorders as well as Acute Stress Disorder and Post Traumatic Stress Disorder.[90] In addition, the recently published VA/DoD Clinical Practice Guidelines for the Management of Post-Traumatic Stress recommends that "all new patients should be screened for symptoms of PTSD initially and then on an annual basis, or more frequently, if clinically indicated due to clinical suspicion, recent trauma exposure (e.g., major disaster), or history of PTSD."[4] These guidelines recommend that primary care providers should routinely provide services for all patients with trauma related disorders, especially those reluctant to seek specialty mental health care through education, evidence-based treatment within the primary care setting or through referral, and follow-up and monitoring of symptoms and co-morbid concerns. Recommendations on which treatments would be most appropriate for the primary care setting is not clearly defined within the guidelines.

Consistent with clinical practice guidelines VA mandates annual screening in primary care for depression, using the PHQ-9,[91] and PTSD, using the PCL.[92] Subsequent assessment for suicide risk is provided if indicated by these screens or by clinical judgment. VHA and other evidence-based depression guidelines recognize the effectiveness and cost-effectiveness of collaborative care with regard to improving symptoms of depression and treatment adherence. Indeed, multiple studies have demonstrated the effectiveness of collaborative care in improving treatment and outcomes for primary care patients with depression.[93-111] Further, there is strong

evidence in primary care settings outside of the VA that supports the delivery of collaborative care management for primary care patients with anxiety disorders as well as depression.[112-114] In VA populations, a recent study by Schnurr that incorporated a care management model for the treatment of PTSD in primary care, did not show this intervention to be effective.[115] However, this may be related to the lack of utilization of the care manager by primary care providers and thus be more of an adoption issue that than an actual negative trial. Felker and others who added a PTSD treatment module to an existing TIDES care management program has had more promising results and is currently under study in "Implementing Collaborative Care for Depression Plus PTSD in Primary Care," SDP 09-402. Fortney, et al. is also adapting an existing care management model to include tools and strategies that support the delivery of a stepped care approach to managing PTSD in rural CBOCs (Telemedicine Outreach for Post Traumatic Stress in CBOCs, MHI 08-098). Findings from this study should be available within the next year. Finally, there is evidence that collaborative care management can improve detection of suicidal ideation[72] and reduce suicidal ideation or attempts.[116]

A recent evidence synthesis (led by John Williams, member of MH QUERI SMI Health Workgroup) has also identified brief psychotherapeutic interventions as a mechanism through which care can be delivered for patients in six to eight sessions of brief CBT or PST and are more efficacious than control for the treatment of depression in primary care. However, the effects while statistically significant are modest with effect sizes ranging from -0.33 to -0.25.[117]

Current Practices and Quality/Outcome Gaps (5): PCMH

In response to concern over Veterans' unmet mental health needs and growing evidence regarding the effectiveness of integrating physical and mental health care[118], VA has identified two approaches to integrating mental health services within primary care settings using the processes of care management and co-located collaborative care.[8]

Care management components in VHA include the Behavioral Health Laboratory (BHL) and Translating Initiatives for Depression into Effective Solutions (TIDES). The BHL is centered on a software-based structured assessment interview, often implemented using a telephone call center.[73,119] Health technicians typically perform these interviews within evaluation and management algorithms designed to meet PCP needs for post-screening assessment, treatment monitoring, watchful waiting, and other on-demand needs. BHL psychologists and psychiatrists oversee these clinical functions, provide clinical expertise and crisis intervention as

needed, and direct implementation in concert with primary care leadership. The TIDES program is typically centered on a registered nurse telephone care manager, who collaborates with PCPs in providing protocol-driven assessment, monitoring and facilitation of treatment modification when needed.[120,121] Program supervision occurs through a mental health specialist, consistent with the published evidence base for integrated care.[122] Historically, TIDES had focused on depressive disorders; however, with national implementation its scope has now expanded to include alcohol misuse, anxiety disorders, and screening for PTSD, consistent with the disease foci of the PC-MHI program.

Co-located collaborative care features mental health specialists located in the primary care clinic providing open access to mental health and substance abuse services, and shared treatment responsibilities with primary care providers. The VA's goal was to combine mental health treatment and primary care to create a clinical environment that would reduce barriers to help-seeking and free specialty mental health providers to care for those with the most severe mental illnesses. Such integrated programs have proven effective in avoiding care fragmentation and facilitating care coordination between mental health and physical health providers.[73,84,123] In addition, patients may be more likely to seek and remain adherent to mental health care offered in a primary care setting rather than a specialty care setting for a number of reasons; these include reduced transportation difficulties and costs, familiarity with clinic personnel and procedures, shortened waiting time for new appointments, reduced stigma, and enhanced communication among providers.[73,124,125] Although our OMHS and OMHO partners have identified delivery of brief evidence-based psychotherapies as a high priority, to date, the development and implementation of these therapies have been limited.

The VA Uniform Mental Health Services Handbook requires promotion of universal access to mental health services for all Veterans within the primary care setting. Implementation is based on facility size with medical centers and large community-based outpatient clinics (CBOCs) using a blended integrated care model that includes co-located collaborative care and care management, and mid-sized to smaller CBOCs having an on-site presence of mental health services. However, even with a clear mandate the level of adoption of the PC-MHI program varies widely across VISN's. Data collected from the PC-MHI Dashboard (http://vaww4.va.gov/PCMHI/PC_MHI_Dashboard.asp, accessed October 5, 2011) indicates that 16 VAMCs across the nation have yet to implement PC-MHI programs. Additionally, the FY10 penetration rates (the ratio of patients seen in the PC-MHI stop codes as a percent of

patients seen in Primary Care and/or PC-MHI) across VISNs varies from 1.8% to 11.4%, demonstrating disparate levels of adoption.

Additional Significant VHA Influences on Current Practices and Outcomes (6): PCMH

In addition to common VHA influences across all of our focus areas described within the SMI Health section above, there are some influences on current practices and outcomes that are specific to PCMH. Patient Care Services' PC-MHI Program, a shared responsibility of the OMHS and the National Primary Care Program, is tasked with supporting PC-MHI implementation to meet requirements of the UMHSH and is responsible for program and policy decisions in this area. Both OMHS and OMHO have assigned designated leaders for this program. Additionally, there is a separate National Evaluation team charged with assessing PC-MHI program implementation and impact. These two groups, along with the VHA Support Service Center provide local PC-MHI initiatives with data on service utilization, program operations, and relevant performance measures through the PC-MHI Dashboard. Another initiative that has significant impact in this area is implementation of Patient Care Services' Patient Aligned Care Team (PACT), VHA's medical home model. The focus of this initiative is on principles of team-based care, coordination of care and care management, and patient centeredness. Although PACT and PC-MHI have similar foci, they are being implemented as separate initiatives. Integrating the two so that they do not compete for resources and result in true integrated care continues to be challenging.

There are a number of significant barriers to PC-MHI implementation. The Joint Commission, formerly the Joint Commission on Accreditation of Healthcare Organizations, is a non-VA entity influencing PC-MHI program implementation. This body requires mental health providers to conduct full mental health intake assessments rather than brief mental health assessments that are more appropriate for primary care settings. Dr. Kirchner, MH QUERI Director, has consulted regularly with OMHS and OMHO PCMH leadership about this issue, and while there has been verbal agreement with Joint Commission that care delivered under the PCMH program differs from specialty mental health care, there has been no formal resolution to the problem. There is also confusion about PC-MHI ownership at the local level. Although this has been a joint effort between Primary Care and Mental Health at the national level, mandates and funding for implementation have come from OMHS. At the local level, it is often perceived as a mental health initiative, which has been a barrier to the collaboration required for successful implementation. Workload issues and federal budget concerns are also barriers to

implementation. VA facilities make decisions about staffing based on providers' productivity as measured by encounter data. "Curbside consultation" is a mainstay of co-located primary care mental health programs. Yet, to date there has been no mechanism through which this workload can be captured. Capturing data related to PC-MHI program implementation at the local level for performance monitoring and improvement is extremely difficult. Because there is a unique Program Office responsible for guiding and supporting implementation of evidence-based mental health practices in primary care settings, our strategic plan for addressing PCMH was developed in collaboration with this Office and with its OMHS and OMHO representatives (see sections 7a and 7c below).

Plan for Achieving Goal 1 (7a): PCMH

To develop, monitor and refine a formal Action Plan for PCMH that will focus on supporting and enhancing implementation of mental health services in primary care settings, MH QUERI established a PCMH Workgroup currently composed of MH QUERI investigators and PC-MHI and OMHS national leaders. Similar to MH QUERI's overall strategic planning process, this workgroup has been charged with building upon and expanding our work in depression care. Because the Action Plan (see Appendix D) is a living document, the workgroup, in the early stages of development, is just beginning to identify other gaps in care in primary care mental health, evidence based interventions to address them, and our role in addressing PC-MHI program office needs.

To accomplish its purpose and address Goal 1, the Workgroup will conduct projects and other partnership activities in two areas of emphasis: 1) Develop, implement, and evaluate evidence-based mental health interventions in primary care. Currently, the Action Plan includes projects that will study further adaptation and implementation of TIDES collaborative care to specialty clinics and patients with PTSD, as well as enhancements to TIDES. The plan also includes projects that will identify gaps in primary care of dementia and adapt, and test, new evidence-based interventions, including a brief CBT psychotherapy for primary care and evidence based interventions to address co-morbid pain and depression and enhance engagement and retention of OEF/OIF/OND Veterans in PC-MHI. 2) Support implementation of PC-MHI. In the short-term, we will complete our study of a VISN-level internal and external facilitation strategy to foster PC-MHI implementation in VISNs 2 and 12. In the medium-term, we will use the findings from that project to inform the training process for OMHO's Technical Assistants to support implementation of Uniform Mental Health Services Handbook requirements, including

PC-MHI, and to revise and more broadly disseminate the Facilitation Technical Manual (see the 'Key Impacts & Challenges' section of our Annual Report). We plan to continue to conduct secondary data analyses of WAVES study data and use findings to inform PC-MHI implementation efforts. Many of the activities and resources that will support PC-MHI implementation will address the needs PC-MHI and OMHS leadership identified at our April meeting (see description in Primary Partners below) and are still in the planning stages. Our role in these activities will be co-defined by MH QUERI, PC-MHI, OMHS, and OMHO leaders so that the results are useful for our partners as well as us. See PCMH Workgroup Action Plan for full listing of ongoing and planned projects and related activities.

Anticipated Key Impacts (7b): PCMH

Several key impacts, and ones that respond to expressed needs of our partners, will include the medium to long-term development of EB brief psychotherapy for primary care settings and the development and testing of a stepped care model for PTSD that incorporates care management. We also have the opportunity to impact implementation of other evidence-based practices and programs via the ongoing training and mentoring of OMHO Technical Assistants. Finally, because the partnership with PC-MHI and OMHS is more advanced in this area than in others, we anticipate that we will learn more about the partnering process itself and that our understanding can inform our efforts in other areas.

Primary Partners (7c): PCMH

Almost from its inception, MH QUERI has supported and enhanced implementation of EB mental health programs and practices in primary care settings, initially through the study of depression collaborative care management.[121] Our early efforts to impact primary care mental health were directed at disseminating information and findings to VA policymakers and program offices. Later, we studied how we might partner with VA organizational leaders to develop a plan to broadly disseminate and implement TIDES collaborative care management in VA.[126] These early efforts were successful as evidenced by OMHS directives/recommendations to include this program in the 2004 MH Strategic Plan[127] and the Uniform Mental Health Services Handbook[128] and invitations to serve as faculty for PC-MHI training programs and provide consultation to VA leaders in the Offices of Patient Care Services and Mental Health Operations who can now best be described as 'integral partners'.[129]

To inform plans to address Goal 1 for Primary Care Mental Health, in April 2011, MH QUERI leadership and investigators met with PC-MHI and OMHS leadership for a jointly planned meeting to discuss our partners' needs/priorities, to present research findings from studies of interest to them, and to begin to plan how we might together address high priority system needs for Veterans in primary care with mental health conditions. At this meeting, we identified ten PC-MHI needs and actions that MH QUERI and the PC-MHI Program Office can take to address them. As an outgrowth of this meeting, MH QUERI, PC-MHI, OMHS, and OMHO leadership continue to meet monthly allowing us to provide consultation to these offices, stay in touch with their priorities and needs, and participate in plans for addressing them. Establishing this structure for ongoing communication will maximize MH QUERI's opportunities to address Goal 1 and impact care.[130]

Our partnership with OMHO, a VA entity established during FY2011, has grown rapidly as we have sought to rapidly address their need to enhance the skills of Technical Assistants responsible for UMHSH implementation (see description above). At their request, Dr. Kirchner has been detailed to that Office to provide training and consultation. This relationship is a partnership model that is new to us and will add to our repertoire of partnering models.

Implementation Science Contribution (7d): PCMH

To date one of our strongest contributions to Implementation Science has been in the development and application of hybrid-effectiveness designs led by Dr. Curran. The Stepped Wedge analysis design being adapted for use in implementation studies by Dr. Rubenstein and colleagues provides an innovative approach to implementation analysis. Our work has also been adopted by our clinical and operations partners. For example, Dr. Kirchner's internal/external facilitation strategy is being used by OMHO to help implement complex components of the UMHSH. Dr. Kirchner, supported by funds from OMHO, is providing education, consultation and mentoring on the application of this strategy. Further, Dr. Krahn is studying the use of a Sustainability Index that will be useful for tailoring interventions for improving sustainability of evidence-based practices and programs.

Cross-QUERI Contribution (7e): PCMH

Dr. Pyne and colleagues are working with Mental Health, HIV/Hepatitis and SUD QUERIs to plan for further dissemination of the TIDES intervention he developed for HIV clinics. This intervention improved both depression and HIV outcomes.

Disparities (7f): PCMH

Many Veterans receive all or most of their care at CBOCs, the majority of which are located in rural settings where access to specialized programs is often limited. Dr. Fortney is using telemedicine technologies to overcome geographic barriers to care for Veterans with PTSD. Dr. Kirchner's work in the development of a facilitation strategy to enhance PC-MHI implementation has been conducted predominately in CBOCs. MH QUERI's PCMH Workgroup plans to collaborate with the Women's Health Research Consortium to identify additional projects and related activities to detect, understand and/or reduce disparities in primary care mental health.

Data Development, Implementation, and Evaluation (7g): PCMH

Dr. Rubenstein and colleagues are conducting secondary analyses of an existing dataset to advance understanding of gaps in PC-MHI care and to inform adaptations to depression care management to account for individual patient-level characteristics such as those associated with psychiatric comorbidity.

Health Information Technology (HIT) Development, Implementation, and Evaluation (7h): PCMH

N/A

Recovery

Significance and Consequences (3): Recovery

VA has defined recovery as "a journey of healing and transformation enabling Veterans with a mental health condition to live a meaningful life in their community of choice while striving to achieve their full potential." Recovery has been identified as a guiding principle for VA's entire mental health service delivery system, and the VA Uniform Mental Health Services Handbook reflects this commitment and expectation. The process of recovery is supported by all programming in the Office of Mental Health Services, especially psychosocial rehabilitation services, which focus on community integration, wellness, improved functioning and achievement of personal goals. In a recovery-oriented system of care, services are individualized and Veteran-centered; promoting hope, responsibility, respect, and partnership.

To operationalize this priority and commitment to our nation's Veterans, the Uniform Mental Health Services Handbook requires VA facilities to implement an array of programs and

services that promote recovery – including but not limited to services to reduce homelessness, increase family involvement in care, and to promote implementation of peer support, supported employment, illness management and recovery, and social skills training. As such, implementation of a diversified collection of programs and services to promote recovery-oriented care across the spectrum of mental illness is explicitly embedded within current VA clinical policy.

Treatment/Management Evidence Base (4): Recovery

There is substantial empirical evidence for the efficacy of many recovery-oriented programs and services, including assertive community treatment (known as Mental Health Intensive Case Management or MHICM in VA) to promote community integration and reduce homelessness, family psychoeducation, supported employment, evidence-based psychotherapy, supported education (to help Veterans achieve academic success), social skills training, and integrated treatment for co-occurring SUD and mental health disorders.[49] Further, VA specialized homeless services programs include the Health Care for Homeless Veterans program (HCHV) and its components (the Grant and Per Diem program, the Supported Housing program, and the and the Housing and Urban Development - Veteran Affairs Supported Housing program (HUD-VASH)); the Domiciliary Care for Homeless Veterans program (DCHV); and the Compensated Work Therapy/Transitional Residence program (CWT/TR). Evidence for peer support programs and consumer providers is building, but more research is needed to clearly demonstrate their effectiveness in VA settings.[131-133] MH QUERI researchers are addressing this need in examining the feasibility of implementing consumer-provider services for patients with serious mental illness and/or co-occurring mental health and substance abuse disorders. One of the lessons learned from a MH QUERI QUERI-sponsored project is that programs implementing peer support should include an organizational change framework and clear roles and responsibilities of the peer specialist in an effort to minimize implementation challenges, including resistance from key stakeholders.[134] Mental Health QUERI's implementation research portfolio for Recovery currently supports active and planned research to conduct process or formative evaluations to identify best practices among a number of the recovery models named above, barriers and facilitators to implementing recovery-oriented programs and services; as well as research testing theory-based, multifaceted interventions to enhance fidelity to the model, and novel implementation platforms to aid with sustained use in VA.

Current Practices and Quality/Outcome Gaps (5): Recovery

As described above, the VA has identified a diverse collection of recovery-based programs and services for implementation with dedicated initiative funding streams; however, implementation success has been variable. Accordingly, there is an explicit need to identify and address potential challenges to implementation, such as: 1) Veterans' perceptions and preferences related to recovery; 2) staff competencies related to recovery-based programs; 3) organizational influences such as policies and/or sufficiency of available staff and other tangible resources to support implementation; and 4) enhancing family and caregiver involvement in care. Rigorous studies are also needed to test the effectiveness of innovative and promising approaches to support implementation of recovery-based programs/services locally and regionally, as well as on a national scale. Further, measuring the VA recovery transformation is a challenge; thus, there is a need to develop and test the impact of recovery transformation measures to assess variance and benchmark progress across the VA in making mental health treatment more recovery-oriented.

Significant Influences on Current Practices and Outcomes (6): Recovery

In addition to common VHA influences on all our focus areas described within the SMI Health section above, additional VHA influences on current practices and outcomes for **Recovery** include:

- National Recovery Workgroup
- VA Family Workgroup
- Local Recovery Coordinators at all VAMCs
- Evidence-Based Practice Coordinators
- Performance measures related to MHICM implementation and wellness
- MyHealtheVet ('Goals' and 'MyRecoveryPlan' modules)
- Psychosocial Rehabilitation and Recovery Centers (PRRCs)

Plan for Achieving Goal 1 (7a): Recovery

Identifying and implementing evidence-based programs/services that promote recovery has been an emphasis within MH QUERI for several years; and over that time, we have developed a growing portfolio of research (and related impacts) in this area. In this updated Strategic Plan, we establish the MH QUERI Recovery Workgroup to develop, monitor and refine on an ongoing basis a formal Action Plan for recovery. The purpose of the MH QUERI Recovery Workgroup focuses on implementing evidence-based programs or practices that promote recovery for

Veterans with mental illness. To accomplish this overall purpose, the Recovery Workgroup proposes to conduct projects and other partnership activities in the following areas of emphasis: 1) Reduce Homelessness, 2) Increase Family Involvement in Care, 3) Engage Consumers/Peers, 4) Improve Employment Outcomes, and 5) Implement Other Programs/Services that Promote Recovery (e.g., Supported Education, Illness Management & Recovery, stigma). The projects and related activities described within the Action Plan in Appendix D constitute the Workgroup's plan to achieve its above-stated purpose and emphases. The Recovery Workgroup Action Plan, as well as the action plans of other MHQ workgroups, is a 'living' document that is subject to continuous revision and update to ensure flexibility and adaptability to new circumstances and/or emerging priorities within the VA that are relevant to the Workgroup's purpose.

Anticipated Key Impacts (7b): Recovery

In establishing the Recovery Workgroup, MH QUERI's work in this area will benefit greatly in terms of enhanced coordination and operational efficiency. In the short- and medium-terms, our implementation research in this area will work to enhance implementation and impact of VA services to: reduce homelessness (e.g., enhance impact of HUD-VASH program for Veterans with co-occurring MH/SUD disorders, increase MHICM capacity for treatment of homelessness); increase family involvement in care; employ and expand the evidence base for peer support services; assist Veterans in achieving their competitive employment and educational goals; and maximize treatment benefit for Veterans with co-occurring MH/SUD disorders. A longer term impact will be to work with our primary partners (see below) and others to identify approaches and/or mechanisms to evaluate VA success in transforming mental health services to a recovery orientation.

Primary Partners (7c): Recovery

Our primary partners for recovery in OMHS will be Drs. Burk, Wilkenfeld and Carroll, as well as Dr. Schohn in OMHO. In the May 2011 meeting described in the SMI Health section above, each had an opportunity to review and provide feedback to us on our areas of emphasis within recovery and initial plans for this focus area. Their feedback is represented within projects and related activities identified in the Action Plan (see Appendix D). Further, Drs. Burk and Wilkenfeld have agreed to serve on the Recovery Workgroup to provide feedback on our strategic direction and progress on an ongoing basis, which will enhance and strengthen our partnerships with OMHS in addressing recovery going forward.

Implementation Science Contribution (7d): Recovery

Within Recovery, MH QUERI investigators are applying and testing usefulness of a number of implementation science frameworks and theories, including but not limited to the Simpson Transfer Model, PARIHS, and the Consolidated Framework for Implementation Research (CFIR). Further, in Recovery and other focus areas, MH QUERI investigators are working to leverage and enhance existing technologies and web-based platforms to support implementation of EBPs. For example, Dr. Curran is partnering with OMHS and EES to develop and test web-based platforms to support implementation of evidence-based CBT.

Cross-QUERI Contribution (7e): Recovery

SUD QUERI is an established partner on a number of MH QUERI projects, including projects within our Recovery Workgroup portfolio. For example, Dr. Smelson's work to test implementation strategies to improve aftercare and reduce homelessness for individuals with co-occurring MH/SUD disorders is a cross-QUERI collaboration with SUD QUERI.

Disparities (7f): Recovery

In Recovery, we currently have a suite of projects that are working to detect, understand and reduce disparities pertaining to engagement with and impact of recovery-oriented programs for women Veterans, and results from those studies will be used to identify promising strategies to reduce those identified disparities.

Data Development, Implementation, and Evaluation (7g): Recovery

We anticipate that the newly available RAND/Altarum evaluation of VHA Mental Health Program Evaluation will provide a rich resource for future studies, particularly in the areas of PTSD, Suicide Prevention, Recovery as well as for patients with SMI. To date we have not been able to access this data base, but understand that Memorandums of Understandings are being developed that will allow the transfer of data to the MH QUERI CC. Drs. Kirchner and Kilbourne served as consultants to the RAND study group on the development of measures used in this evaluation and will be able to inform future studies that use this data.

Health Information Technology (HIT) Development, Implementation, and Evaluation (7h): Recovery

Drs. Young and Lysell are partnering with OMHO and OI&A to integrate Dr. Young's web-based, computer-assisted Patient Assessment System into the VistA Mental Health Package to

facilitate routine collection and monitoring of patient outcomes data. This system will not only be a valuable resource to inform treatment and monitor response to care, but could also serve as a useful resource in QUERI research to implement and evaluate impact of recovery-based programs and practices.

POSTTRAUMATIC STRESS DISORDER

Significance and Consequences (3): PTSD

The assessment and treatment of Posttraumatic Stress Disorder (PTSD) is a high priority for the VHA. PTSD occurs in about 11-20% of OEF/OIF Veterans[135], about 10% of Gulf War (Desert Storm) Veterans[136] and about 30% of Vietnam Veterans.[137,138] Among Veterans, PTSD is highly co-morbid with substance use disorder[139], major depression[140], and concussive symptoms attributed to mild TBI.[141] Veterans with PTSD are also at higher risk for violence and injury. Recent research has indicated that returning Veterans with PTSD are at increased risk for engaging in high risk behaviors.[142] The consequences of untreated PTSD on a Veteran's life may lead to involvement in the legal system or violence among families (e.g., intimate partner violence, suicide), while others are profoundly impacted with regard to their quality of life, employment and educational pursuits.

Evidence-based treatments for PTSD exist;[143] however, the adoption, use, and fidelity to these treatments is hampered by limited information on optimal implementation strategies that can be used in routine clinical settings and factors affecting likelihood of successful implementation. New models that provide a permanent (yet flexible) implementation research infrastructure that facilitates study of the implementation of EBPs for PTSD are critically needed to accelerate their system-wide adoption and sustained use. Additionally, the increased use of technology to spread effective interventions for PTSD holds great promise for reaching Veterans in need of care and facilitating patient-centered treatment. Innovative, system-wide implementation strategies that support the use of evidence-based, promising, and emerging practices are clearly needed to reduce the short- and long-term impact of PTSD on the lives of Veterans and their families.

Treatment/Management Evidence Base (4): PTSD

The efficacy of psychosocial and pharmacotherapy treatments for PTSD has been demonstrated repeatedly[143-145] and incorporated into treatment recommendations in published clinical practice guidelines.[146,147] The VA/DoD Clinical Practice Guideline (CPG) for the Management of Post-Traumatic Stress was initially published in 2004 with a critical update released in October, 2010 (Version 2.0). The new CPG provides one recommendation concerning early interventions to prevent PTSD, and two each for psychotherapy and pharmacotherapy interventions for treatment of PTSD, for which the Strength of Recommendation, using the U.S. Preventive Services Task Force rating system, is strong [A].[51] The psychosocial recommendations for early interventions (more pertinent to DoD than VA) include brief cognitive behavioral therapy (e.g., 4-5 sessions). The recommended treatment interventions include a trauma-focused psychotherapy (e.g., Prolonged Exposure Therapy), a cognitive-based therapy (e.g., Cognitive Processing Therapy), stress inoculation training (e.g., Stress Management therapy) or Eye Movement Desensitization and Reprocessing (EMDR). Although the Strength of Recommendation for group therapy in general is graded as a [C] (May Be Recommended[51]), recent research suggests that group format CPT may be delivered effectively in residential PTSD treatment programs[148] and can feasibly be delivered via telehealth.[149] A large randomized trial of CPT that includes a comparison of group and individual delivery modes is underway, and the study's results will inform future decisions about CPT implementation in VA. More definitive results are needed from a large randomized trial of CPT being conducted at present to compare group and individual modalities.

Regarding medication treatment for Veterans diagnosed with PTSD, the guidelines recommend: selective serotonin reuptake inhibitors (SSRIs), for which fluoxetine, paroxetine, or sertraline have the strongest support as first line treatment, or serotonin-norepinephrine reuptake inhibitors (SNRIs), for which venlafaxine has the strongest support. While not recommended in VA guidelines and potentially harmful, the use of anxiolytics / sedative-hypnotics (e.g., benzodiazepines) is not uncommon in clinical practice,[150] even in Veterans with substance use disorders.[151,152] While investigators and clinicians initially hoped that the atypical antipsychotic risperidone would be an effective adjunctive treatment for patients who have not responded to SRRIs alone, and this medication was recommended in this situation, recent research suggests this is not an effective treatment strategy[153] requiring a revision to the CPG (released in 2010) where it was previously recommended.

Current Practices and Quality/Outcome Gaps (5): PTSD

The VA has successfully conducted large-scale rollouts of training in prolonged exposure (PE) and CPT psychotherapy[154] targeted to PTSD clinics and specialists. However, survey data from the PE rollout, CPT rollout, and the PTSD Mentoring program suggest that PE and CPT account for only a minority of the psychotherapy provided in PTSD specialty settings.[155-157] The specific barriers in limiting wider use of PE and CPT are not yet clearly understood. Guideline-recommended SSRIs or SNRIs are the most commonly prescribed medications for PTSD; however, many patients fail to refill medications for at least 2-4 months.[158,159]

Another potential gap is the transition from screening to treatment. While the four-item primary care PTSD Screen (PC-PTSD) has been validated and is routinely used in VA Primary Care and SUD settings,[160,161] a positive screen may not lead to diagnosis and treatment.[162,163] Screening for Military Sexual Trauma (MST) is associated with greater utilization of mental health treatment;[164] however, less is known about the quality and outcomes of MST care. Only one quarter of patients beginning any psychotherapy for PTSD (not necessarily from PE or CPT specifically) receives eight or more sessions.[159] These findings suggest a possible need to develop alternative intervention models for patients who do not want in-person mental health treatment.[165] These could potentially include web or smart phone based delivery of efficacious interventions.

Other areas of clinical need with limited evidence-based practices include the treatment of co-occurring mild TBI/PTSD, family involvement in PTSD treatment, and improving work functioning (e.g., maintaining or returning to employment). Lastly, the Uniform Mental Health Services Handbook (UMHSH) mandates that addiction specialists be placed in all PTSD specialty programs; however, there is no data as yet on their best role (e.g., delivering dual treatments, championing SUD-informed PTSD care, facilitating SUD referral). The PTSD Workgroup of the SUD QUERI will be working on this issue, actively collaborating with the MH QUERI and the eHealth QUERI as part of our new PTSD Coalition (see Section 7).

Current initiatives and resources that can promote implementation of specific interventions may include: 1) VA mandates (including UMHSH) that support EBP implementation (e.g., MST screening, PC-PTSD screening, Evidence-based psychotherapy: Cognitive Processing Therapy and/or Prolonged Exposure Therapy); 2) initiatives to implement these psychotherapies (e.g., national training rollouts, evidence-based practice coordinators); 3) the PTSD Mentoring Program, which provides guidance to PTSD program directors via regional mentors and web-

based training materials; 4) staffing for integrated addiction treatment in PTSD programs; 5) mandates for monitoring PTSD patient outcomes; and 6) initiatives and funding to support telemedicine delivery of evidence based psychotherapy. In summary, while many current evidence based practices are being applied to the dissemination of PTSD interventions, particularly psychotherapies, a number of evidence-based strategies for implementing these practices in VA have yet to be identified and tested.

Significant Influences on Current Practices and Outcomes (6): PTSD

In addition to common VHA influences across all of our focus areas described within the SMI Health section above, additional VHA influences on current practices and outcomes for **PTSD** include:

- National Center for Posttraumatic Stress Disorders (PTSD)
- Evidence-based psychotherapy for PTSD, potential for great influence on practice
- 2009 mandate for monitoring of PTSD treatment outcomes, an important opportunity in the promotion of measurement-based care
- PTSD Mentoring Program, an important infrastructure from which current and future practice can be influenced

Plan for Achieving Goal 1 (7a): PTSD

PTSD is a new focus area for MH QUERI. Following the identification of PTSD as a focus area, we enhanced our existing collaboration with the National Center for PTSD (NC-PTSD), by creating a topic specific coalition. This PTSD Coalition, led by Craig Rosen, PhD and Josef Ruzek, PhD is co-sponsored by the MH QUERI. As noted in our annual report, this coalition is currently comprised of representatives from NC-PTSD, MH QUERI, SUD QUERI and eHealth QUERI. The long term goal of the coalition is to identify, develop, and enhance the implementation and dissemination of evidence base practices for PTSD among Veterans. In the short term, the workgroup has identified two emphases to support further implementation of evidence-based, promising, and emerging clinical practices: 1) identify implementation strategies that support the adoption and use of the components of Clinical Practice Guidelines for PTSD (development of a PTSD Practice-Based Implementation Research Network (PBIRN) is one example that will facilitate dissemination of specific practices and inform learning about factors affecting implementation outcomes); and 2) apply innovative technology (including video-teleconferencing, web, and smart phone-technologies) to facilitate implementation and

dissemination of evidence-based, promising, and emerging clinical practices for Veterans with PTSD, increase adherence to treatment protocols, and improve practitioner training. In addition to our currently funded projects in this focus area, we will concentrate much of our initial efforts on development of a SDP application (Ruzek, PI) that will use the National PTSD Mentoring program to develop and implement a system for incorporating measurement-based care for PTSD. This will provide the foundation upon which a PBIRN for PTSD can be established. The rapid development of the PTSD Coalition is a testimony to trauma research being a high need area for VHA.

Anticipated Key Impacts (7b): PTSD

By providing a venue within which projects arising from any of the PTSD Coalition member's investigators can be reviewed, we feel that an early impact will be the reduction of duplicative efforts and better coordination of projects that arise from multiple funding sources. Long term impacts of the PTSD coalition will be the incorporation of measurement-based care within sites participating in our PBIRN; and application, testing and enhancement of innovative technologies to maximize reach and impact of EBPs for PTSD.

Primary Partners (7c): PTSD

In addition to members of the PTSD coalition (MH QUERI, NCPTSD, SUD QUERI, and eHealth QUERI), our primary partners will be Drs. Batten and Lehmann in OMHS, as well as Dr. Schohn in OMHO, with whom we have had an opportunity to review our areas of emphasis and initial plans for this focus area. We will also work closely with the Polytrauma QUERI as described in our annual report to develop and recommend that MH QUERI investigators administer a standardized set of TBI screening measures when appropriate. We will continue our collaboration with DoD (strongly enhanced by Drs. Kirchner's and Ruzek's participation on the VA/DoD IMHS Task group #26) as well as with State National Guard and Reserve units.

Implementation Science Contribution (7d): PTSD

Similar to our other focus areas, MH QUERI investigators are applying and testing the usefulness of a number of implementation science frameworks and theories, including PARIHS and the Consolidated Framework for Implementation Research (CFIR). In particular to PTSD, MH QUERI investigators are working to identify implementation strategies that support adoption and use of the components of Clinical Practice Guidelines for PTSD. The new PTSD PBIRN is

one example of a resource we hope to develop with our partners that can provide an infrastructure to test new implementation strategies in the treatment of PTSD.

Cross-QUERI Contribution (7e): PTSD

In addition to the cross-QUERI contributions described under the PTSD Partnership section (including the distinction between PTSD and PTSD with TBI, developed with the Polytrauma and Blast-Related Injuries QUERI), we will also work closely with SUD QUERI and eHealth QUERI. In order to enhance our Cross-QUERI collaboration, we will work with the SUD QUERI to share, coordinate, and formalize the process for consultation duties (e.g., feedback and support) on emerging projects that have cross-over between MH and SUD to decrease redundancy. As one example of this collaboration, MH QUERI leadership is already providing consultation on two SUD-related CREATEs (Collaborative Research to Enhance Transformation and Excellence), and will continue to support NC-PTSD and SUD QUERI-related projects.

Disparities (7f): PTSD

As we have developed our initial plans for a PBIRN, we have strongly emphasized the need for inclusion of rural CBOCs and small non-academically affiliated VAMCs as participating sites. Special recruitment efforts will be conducted to ensure that the PBIRN is representative of rural as well as urban settings. Additionally, two planned projects, one by Dr. Crilly on the use of text messaging to deliver caring letters to increase access to care for rural veterans and the second by Dr. Sadler focuses on online interventions for female OEF/OIF/OND Reserve/National Guard War Vets. In addition to the use of technology in both of these projects, the focus on high need populations will aid in our work to identify promising strategies to reduce disparities among diverse Veterans with PTSD.

Data Development, Implementation, and Evaluation (7g): PTSD

The NC-PTSD's access to the PTSD Mentoring program provides access to existing data and collaborations that will add value to the proposed PBIRN by incorporating measurement-based care within participating sites. Another MH QUERI project that informs development of data for potential use for future performance measures is Dr. Eisen's study to develop a computer-adapted test for PTSD. As mentioned in Recovery (Section 7g) we anticipate that the newly available RAND/Altarum evaluation of VHA Mental Health Program Evaluation will provide a resource for future studies for PTSD as well.

Health Information Technology (HIT) Development, Implementation, and Evaluation (7h): PTSD

A variety of funded MH QUERI projects are already advancing the PTSD Coalition's goal to apply innovative technology to facilitate implementation and dissemination of evidence-based, promising, and emerging clinical practices for Veterans with PTSD, increase adherence to treatment protocols, and improve training of practitioners. As noted above, Drs. Crilly and Sadlers' planned projects incorporate the use of technology while other projects utilize advanced technology such as Dr. Pyne's use of virtual reality to identify and treat Veterans at risk for PTSD. In addition, Dr. Fortney is currently testing a telemedicine-based collaborative care model for PTSD, supported by a web-based decision support system to monitor and inform adjustments to treatment as needed.

Suicide Prevention

Significance and Consequences (3): Suicide Prevention

Suicide prevention is a high priority for the Veterans Health Administration (VHA). Globally, nearly 1 million individuals die by suicide each year.[166] This includes about 34,000 Americans[167] and accounts for approximately 6,400 Veteran deaths with between 1,600-1,800 of these occurring among VHA users.[168] Historically, the rate of suicide among military personnel was lower than that among civilians after adjusting for age and gender.[169] Data now indicates that suicide rates are higher than civilians among some cohorts of Veterans[170-172] and particularly those seeking VHA mental health care.[173,174] Specifically, the risk of suicide is significantly higher than the comparable U.S. general population for Vietnam Veterans who were wounded in action[171] and those with high levels of combat trauma as indirectly measured by having PTSD.[170] For OEF/OIF Veterans followed until the end of 2007, the risk of suicide is also higher, especially among those patients with certain mental disorders such as psychoses, neurotic disorder, alcohol/drug dependence, adjustment disorder including PTSD, and depressive disorder.[172] Among psychiatric VHA patients, the risk of suicide was also higher than the comparable U.S. general population for FY 2000-2001[173] and for those patients who received VHA treatment for depression from 1999-2004.[174] Analysis of VHA data reveals specific risk factors for suicide among those in VHA care include: 1) diagnoses of traumatic brain injury (TBI), non-cancer pain related conditions, and mental health conditions (e.g., major depressive disorder, substance use disorders, bipolar disorder, and other anxiety disorders); and 2) contextual elements including access to firearms, stigma associated with help-seeking

and mental health disorders, isolation (i.e. rurality). Finally, other groups at high risk include homeless Veterans, Veterans enrolled in Home Based Primary Care, and Veterans discharged from Community Living Centers.

Additionally, a potent risk factor for suicide among Veterans is a previous history of attempting suicide. VHA Suicide Prevention Coordinator reports[168] estimate that there are approximately 1,000 suicide attempts per month among Veterans receiving care in VHA. Nearly 30% of recent suicides have a previous attempt. Given the heightened risk among Veterans, implementation strategies that support the use of evidence-based, promising, and emerging practices in prevention and clinical intervention are clearly needed to reduce suicide attempts and death by suicide.

Treatment/Management Evidence Base (4): Suicide Prevention

In the United States, there are a number of evidence-based public health strategies to address conditions associated with increased risk for suicide.[175] Of these various suicide prevention strategies, means restriction, promoting help seeking and access to care among those in distress (e.g., hotlines), and depression screening and care management have evidence of effectiveness.[175] Among the clinical interventions, cognitive therapy, Dialectical Behavior Therapy, medication management, continuity of aftercare, and follow-up contact (i.e. caring letters) have some data to support a reduction in suicide attempts and suicide.[175] With the passage of Public Law 110-110 in November 2007, VHA implemented a comprehensive program designed to reduce suicide among Veterans. Prior to this mandate, the 2004 Mental Health Strategic Plan (MHSP) included 10 initiatives specific to suicide prevention to guide clinical practice in VHA. In 2007, the MHSP Initiatives for Suicide Prevention were reviewed by the VA OIG with 6 recommendations "to achieve system-wide implementation of a set of promising and/or emerging best practices, coupled with their ongoing evaluation and modification, [to] facilitate provision of a single standard of preventative care for all veterans seen at VHA": 1) crisis availability [crisis management] and outreach, 2) depression screening and referral, 3) tracking and assessment of Veterans at risk, 4) emerging best practice interventions and research, 5) development of an electronic suicide prevention database, and 6) education. A 2008 Blue Ribbon Work Group on Suicide Prevention in the Veteran Population reviewed this strategy and supported VHA's continuing initiatives and innovations. National efforts to develop a joint VA/DoD Clinical Practice Guideline (CPG) for suicide prevention and treatment are forthcoming. Until the CPG is released, MH QUERI's implementation research

portfolio for suicide prevention will focus on implementation of procedures and clinical practices consistent with the 2004 MHSP recommendations, OIG report, and Blue Ribbon Work Group for this high priority clinical area.

Current Practices and Quality/Outcome Gaps (5): Suicide Prevention

While some recommended evidence-based practices exist in VHA, data on the implementation and fidelity of these practices in VA are limited. In order to maximize suicide prevention efforts across VA and DoD, the development and dissemination of interagency initiatives such as implementation of a standardized nomenclature and practice guidelines are critical first steps toward identifying gaps in mental health care that address Veteran suicide. As one example, a 2009 DoD/VA Health Executive Council's Joint Strategic Plan required the adoption of a standardized system of nomenclature for clinical events related to suicide developed by the Centers for Disease Control and Prevention. A MH QUERI project conducted by Dr. Lisa Brenner, in collaboration with VISN 19 MIRECC, examined the organizational- and provider-level factors associated with implementation and refinement of the nomenclature and an adjunctive clinical tool. While the development and implementation of a standardized nomenclature is an important advance for the field of suicide prevention and VHA, current practice suggests that there is variation and gaps in a number of areas, to include 1) clinical providers understanding of and use of the nomenclature for documenting suicidal behavior, 2) variation in caller or call characteristics to the Veterans Crisis Line that influence the acceptance of a referral to VHA care by the end of the call, 3) variation in the implementation of gun safety programs across the VHA, 4) the existence of organizational- and provider-level barriers and facilitators to Veterans accessing VHA's suicide prevention services, and 5) the potential effectiveness of clinical screening programs for suicidal ideation among OEF/OIF Veterans. Given these gaps, it is imperative to focus research on implementing innovative and promising appropriates to suicide prevention, at local, regional, and national levels.

Significant Influences on Current Practices and Outcomes (6): Suicide Prevention

In addition to common VHA influences across all of our focus areas described within the SMI Health section above, additional VHA influences on current practices and outcomes for Suicide Prevention include:

- VISN 2 Center of Excellence on Suicide Prevention at Canandaigua
- VISN 19 MIRECC

- Enhanced Care Package, provides the recommended practices for suicide prevention
- Clinical Practice Guidelines, currently under development and will further define best practices in this area

Plan for Achieving Goal 1 (7a): Suicide Prevention

Suicide prevention is a new priority area for the MH QUERI. Following the identification of Suicide Prevention as a priority area by MH QUERI, a group of interested researchers quickly transformed into a coalition comprised of VHA and external experts in suicide research. Participants in the coalition include investigators from the VISN 19 MIRECC, SMITREC, and the VISN 2 Center of Excellence as well as managers from VA Mental Health Operations. This Suicide Prevention Coalition, hosted by and embedded within the VISN 2 Center of Excellence, is led by Robert Bossarte, Chief of Epidemiology and Population Research, and is co-sponsored by the MH QUERI. The long term goal of the coalition is to identify, develop, and enhance the implementation of organizational public health and clinical practices that are expected to decrease suicidal behaviors among Veterans. In the short term, the coalition has identified areas of emphasis to support further implementation of evidence-based, promising, and emerging clinical practices: 1) prior to the emergence of Clinical Practice Guidelines, identify implementation strategies that support the adoption and use of the components of the current VA Enhanced Care Package for suicide prevention; and 2) identify and develop implementation strategies for evidence-based public health, as well as promising and emerging clinical practices for suicide prevention, that address periods of transition in the lives of Veterans. The rapid development of the Suicide Prevention Coalition and the commitment of identified leaders at promoting implementation practices is a testimony to suicide research being a high need area for VHA. We will achieve the coalition's area of emphasis by continuing to use the QUERI six-step process to diagnose gaps in performance, and identify and implement interventions to address them. Particular to suicide prevention, MH QUERI supports the Center of Excellence at Canandaigua's adoption of the public health approach to suicide prevention as their guiding conceptual framework as well as the VISN 19 MIRECC's goal of developing and disseminating clinical interventions to reduce suicidality.

MH QUERI projects focused on identifying variation and enhancing implementation of suicide prevention efforts in the VA include but are not limited to the following. Dr. Robert Bossarte is studying variability in suicide event reporting and implementation of VA's gun safety program.

Dr. Monica Matthieu will examine organizational- and provider-level barriers and facilitators to accessing suicide prevention services in rural and urban settings. Dr. Steven Dobshca's IIR focuses on the outcomes and correlates of suicide ideation among OEF/OIF Veterans with depression screened in VA facilities. In addition, the National Suicide Prevention program supports a number of ongoing best practice initiatives that requires ready access to high quality mental health (and other health care) services and innovations to include the Local Suicide Prevention Coordinators, the suicide prevention hotline, a Safe Vet risk assessment, high risk indicators, a peer support program, gatekeepers on college campuses, the gun safety lock program, public information campaigns, and collaborations with the Centers of Excellence at Canandaigua, the VISN 19 MIRECC, and the Serious Mental Illness Treatment Research and Evaluation Center.[168] These current practices provide targets of opportunity for future study and quality improvement initiatives.

Anticipated Key Impacts (7b): Suicide Prevention

MH-QUERI research is working to implement public health and clinical evidence-based practices and ensure that Veterans receive the highest quality mental health care. Specific to suicide prevention, a key anticipated impact is that MH QUERI research has the potential to reduce morbidity and mortality due to suicidal behaviors among our nation's Veterans.

Primary Partners (7c): Suicide Prevention

As a co-sponsor of this coalition, MH QUERI will work closely with our host VISN 2 Center of Excellence at Canandaigua, as well as investigators from VISN 19 MIRECC and SMITREC in order to accomplish this goal. A close collaboration with OMHS will be ensured by the presence of Dr. Jan Kemp, OMHS, and Director of the National Suicide Prevention Program within the coalition. Through these partnerships the coalition will be poised to rapidly contribute to the implementation of the Suicide Prevention Clinical Practice Guidelines when they are completed.

Implementation Science Contribution (7d): Suicide Prevention

Within Suicide Prevention, MH QUERI investigators are applying and testing usefulness of implementation science frameworks and theory (e.g., PARIHS). MH QUERI investigators are working to identify characteristics of Veterans at high risk for suicide and to apply appropriate clinical and public health approaches. For example, Dr. Robert Bossarte is examining the implementation of the VHA's national gun safety program and also the variability in suicide event reporting using data from the Suicide Prevention Action Network.

Cross-QUERI Contribution (7e): Suicide Prevention

Given the relative newness of the Suicide Prevention coalition, we will be working to identify projects with the potential for increasing our collaboration across QUERI centers.

Disparities (7f): Suicide Prevention

While none of the current MH QUERI projects focus explicitly on disparities, ongoing work at the SMITREC continues to provide critical new knowledge on the individual level factors, groups, contexts, and transitions that impact and heighten a Veteran's risk for suicide.

Data Development, Implementation, and Evaluation (7g): Suicide Prevention

SMITREC currently houses mortality and cause of death data from the CDC's National Death Index on all VA users since 2000 and merges these data with VA administrative data, creating a unique data source for examining suicide decedents among VA users. In addition, the Office of Mental Health Services has a repository of calls into the National Veterans Crisis Line.

Health Information Technology (HIT) Development, Implementation, and Evaluation (7h): Suicide Prevention

The National Veterans Crisis Line and the ability to utilize VistA to document and track referrals to local Suicide Prevention Coordinators is a valuable resource to inform treatment and to monitor coordination of and the provision of quality care across VHA sites. The HIT innovations in VHA care that are related to suicide prevention (e.g., VistA consultations to local Suicide Prevention Coordinators) are also rich resources for MH QUERI research to identify variations in implementation and identify strategies to enhance impact.

5. Strategic Plan for Goal 2

Goal 2: Develop and evaluate strategies that promote bi-directional partnerships for co-production of research and knowledge exchange between investigator's and stakeholders.

Plan for Achieving Goal 2 (7a): Stakeholder Council

In maintaining MH QUERI's history of multi-disciplinary inclusion within the EC, Workgroups, collaborations and partnerships, MH QUERI continues to seek out and incorporate feedback, opinions and advice from as diverse a representation of stakeholders as possible. In order to expand upon this principle, MH QUERI has begun the formation of a Stakeholder Council (SC) under the direction of the CC and with input from the EC. A chairperson for the Stakeholder Council has already been identified by the CC and has agreed to serve in this capacity for at least the next two years. Nicole Hart is an OEF/OIF Veteran that served as Special Assistant for Agency and Legislative Affairs for the Office of the Governor of the State of Arkansas. One of Ms Hart's primary duties for the Governor was as Liaison for Military and Veteran's Affairs. In this capacity Ms. Hart was instrumental in developing plans and policies that address the needs of past and present servicemen and servicewomen and has proven to be a great facilitator within large advisory groups. Currently Ms. Hart is the Chief Executive Officer of ARVets, a non-profit organization that works to enhance the overall quality of life for military personnel, Veterans and their families by improving access to resources and strengthening support systems through all phases of the military life cycle. While the SC will ultimately include up to 15 members representing many areas of stakeholder interest approved by the EC, the CC has chosen to initially field nominations for only a portion of these areas in order to develop a core membership that will then work with the CC to further develop the SC, its charge and full membership. Nominations for representatives are currently being solicited from all members of MH QUERI as well as our partners in PCS, OMHS, and others. These requests have identified several excellent candidates that will be contacted for membership. Ultimately the SC members will not only represent multiple areas of stakeholder interest as listed in Goal 2 (including Veterans, family members, providers, clinical managers, and VHA clinical operations and management leadership), but will also represent different geographical areas from across the United States. In addition, in establishing the full composition of the SC, we will work to ensure diversity in terms of identifying Veteran consumers, families and peers of Veterans from different eras (e.g., Vietnam War, OEF/OIF), as well as diversity in terms of race and sex.

A timeline for the development of the SC has been created with participation from the SC Chairperson which includes creating a charter outlining the Council's objectives, operational support of the Council by the CC, and responsibilities of the representatives themselves. Currently we plan to ask representatives to serve a minimum of two years on the Council and to meet quarterly by telephone conference call for 90 minutes. The current timeline calls for selection of representatives by the end of February 2012 with an initial call of the Stakeholder Council members in March 2012. A tentative face-to-face meeting of the SC is also being planned for April 2012 contingent on the approval of the HSR&D/QUERI National Meeting in Washington D.C. and the availability of travel funds. The CC will promote the SC as an invaluable resource for investigators developing new studies or projects that address mental health issues within the scope of MH QUERI's research portfolio. The SC's primary duty will be to review studies and projects presented by investigators as vetted through the CC, and provide feedback and recommendations to those investigators. The SC will be regularly updated by the CC on the status of the studies and projects reviewed as well as other items pertinent to MH QUERI's mission.

The performance of the SC will be categorized on two fronts; success (measures) and effectiveness (indicators). While success is typically evaluated dichotomously as meeting a set of measures (e.g., 'Did the SC provide feedback for a specified number of studies/projects'?), effectiveness requires a more in-depth evaluation of the Council. Therefore, in addition to documenting the number of projects that undergo SC review, IRCs not actively engaged with the SC will conduct surveys and if appropriate key informant interviews of SC membership after one year of functioning to identify areas for improvement. A qualitative evaluation of the Council's performance not only gives insight into the process of how those quantitative goals were accomplished, but also the impact of the process itself. Indicators of the Council's effectiveness include provision of meaningful feedback to investigators, inclusive and open dialogue, knowledge exchange, and tangible stakeholder support for projects.

Anticipated Key Impacts (7b): Stakeholder Council

MH QUERI anticipates the SC will provide powerful and valuable information to participating investigators increasing the value and sustainability of research and implementation efforts within our portfolio. Additionally, members of the SC will gain a greater knowledge and appreciation for the efforts of the VA, MH QUERI, and investigators in the research and implementation of evidence-based practices for mental illness.

Primary Partners (7c): Stakeholder Council

MH QUERI's primary partners in Goal 2 include future Stakeholder Council representatives from Veterans and their families as well as VHA policy makers and program officers, VHA Operations & Management, clinic managers, and providers.

Implementation Science Contribution (7d): Stakeholder Council

Goal 2 acknowledges and affirms the value that MH QUERI places in developing, nurturing and sustaining partnerships with a diverse collection of stakeholders in defining and executing a comprehensive implementation research agenda to maximize treatment benefit for Veterans receiving VA mental health services. Goal 2 emphasizes the creation and testing of new mechanisms (e.g., Stakeholder Council), strategies, and tools to support the development (capacity building) and maintenance of these partnerships with Veterans, clinicians, managers, and policy-makers.

Cross-QUERI Contribution (7e): Stakeholder Council

MH QUERI believes that the formation and utilization of the SC will serve as a potential model for other QUERI Centers that may benefit from increased feedback from stakeholders and the bi-directional partnerships it promotes.

Disparities (7f): Stakeholder Council

Goal 2 addresses disparities through recognition of the importance of diverse stakeholder voices and by ensuring as wide a representation as possible is included on the SC. Representation included within the SC will not only come from multiple areas of stakeholder interest as listed in Goal 2, but will also represent different geographical areas, different service eras (i.e., Vietnam War, OEF/OIF) as well as ethnicity and gender.

Data Development, Implementation, and Evaluation (7g): Stakeholder Council

Not applicable

Health Information Technology Development, Implementation, and Evaluation (7h): Stakeholder Council

Not applicable

6. Management Plan (See Organizational Chart, Appendix E)

Mental Health QUERI's administrative structure is comprised of an Executive Committee and three coordinating centers, a Research Coordinating Center directed by Dr. JoAnn Kirchner; a Clinical Coordinator's Office, directed by Dr. Stephen Marder; and a Clinical Coordinator's Office, directed by Dr. Lisa Rubenstein. MH QUERI's Research Coordinating Center is located within the Central Arkansas Veterans Healthcare System in Little Rock, Arkansas. Geoffrey Curran, PhD, is the Associate Director of the Research Coordinating Center. Two Implementation Research Coordinators, Jeff Smith and Mona Ritchie, both PhD Candidates, are also based in Little Rock. A third Implementation Research Coordinator, Dr. Monica Matthieu, is located at the St. Louis VAMC in Missouri. Both of the Clinical Coordinators' offices are located within the VA Greater Los Angeles Healthcare System in Los Angeles, California. See Budget pages in the 2011 Annual Report for a description of roles and functions of MH QUERI's Coordinators.

MH QUERI has established three new Workgroups to develop and operationalize implementation research 'action plans' in the Goal 1 focus areas of SMI Health, PCMH, and Recovery. The goal of the SMI Health Workgroup is to improve wellness and physical health treatment/outcomes for Veterans with SMI. The goal of the PCMH Workgroup is to continue our ongoing work to support and enhance implementation of primary care/mental health integration models throughout the VA. The goal of the Recovery Workgroup is to identify and implement evidence-based programs or practices that promote recovery for Veterans with mental illness. Our implementation research portfolios for PTSD and Suicide Prevention will be developed through new coalitions with existing VA Centers of Excellence (i.e., the National Center for PTSD and the VISN 2 Center of Excellence for Suicide Prevention at Canandaigua) and other VA partners conducting research in these areas. The goal of the PTSD Coalition is to identify, develop, and enhance implementation and dissemination of evidence-based practices for PTSD. The goal of the Suicide Prevention Coalition is to identify, develop and enhance implementation of organizational, public health, and clinical practices that are expected to decrease suicidal behaviors among Veterans. IRC Jeff Smith will provide support to the SMI Health and Recovery Workgroups. Co-IRC Mona Ritchie will provide support to the PCMH Workgroup, and Co-IRC Monica Matthieu will provide support to the PTSD and Suicide Prevention Coalitions.

MH QUERI has established a systematic process for providing consultation and support to investigators who wish to apply for QUERI funding to: 1) ensure that proposals are consistent with MH QUERI's mission and strategic goals/aims; and 2) increase chances for funding success. Judicious allocation of MH QUERI resources will be essential if we are to be able to develop a portfolio of projects that results in meaningful and measurable impacts in all of our focus areas. To this end, Workgroups are charged with identifying specific emphases on which to concentrate their efforts. Workgroup leaders will review projects that request support and consultation from the MH QUERI CC to help determine the degree to which they will advance the respective Workgroup's Action Plan. For investigators whose projects meet this criterion, we provide consultation on the QUERI framework, implementation science theory and methods, as well as letters of support for individual proposals. In addition, the CC maintains regular communication with investigators to monitor funding decisions and project status. On an annual basis, the CC also provides limited, competitive funding support to core and affiliated investigators through locally initiated project (LIP) funds. Additionally, MH QUERI has begun the formation of a Stakeholder Council (SC) composed of Veterans, family members, providers, clinical managers, and VHA clinical operations and management leadership that will review studies and investigators' projects and provide feedback and recommendations to them. Nicole Hart, an OEF/OIF Veteran that currently serves as CEO of the non-profit organization ARVets, will chair the SC under the direction of the CC and the EC.

The MH QUERI CC also supports and coordinates monthly leadership calls (which include the Director, Associate Director, Co-Clinical Coordinators, IRCs and Workgroup and Coalition leaders), monthly Workgroup and Coalition conference calls, as well as quarterly EC conference calls and annual in-person EC meetings. The Coordinating Center, through ongoing and systematic communication, keeps the EC informed of the progress of active and planned MH QUERI projects, and seeks their feedback and direction for MH QUERI planning and operational processes. As needed, the CC also helps facilitate meetings and conference calls with VHA national program office and operations leaders to obtain information about their priorities, provide updates, and obtain their input on our strategic direction.

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8. Appendices

Appendix A: Strategic Planning Process

Appendix B: ICD-9 Codes for SMI

Appendix C: Analytic Framework

Appendix D: Workgroup Action Plans

Appendix E: Organizational Chart

Appendix F: Performance Measures

Appendix A: Strategic Planning Process

Expert Presentations for Potential New Focus Areas

The following experts presented MH QUERI Subgroup members with condition-specific information for discussion and consideration of potential focus areas.

- Bipolar Disorder – Amy Kilbourne, PhD, MPH, Associate Director, Serious Mental Illness Treatment Resource and Evaluation Center
- Posttraumatic Stress Disorder – Matthew Friedmann, MD, PhD and Craig Rosen, PhD, National Center for PTSD
- Suicide Prevention – Rob Bossarte, PhD, VISN 2 Center of Excellence for Suicide Prevention
- Homelessness – Vince Kane, MSW, The National Center on Homelessness Among Veterans
- Recovery – Miklos Losonczy, MD, PhD,
- Care Management – Mark Bauer, MD, Associate Director, VA HSR&D, Center for Organization, Leadership, and Management Research
- Telemedicine – Linda Godleski, MD, VHA Lead for Telemental Health
- OEF/OIF Populations – Larry Lehmann, MD, Associate Chief Consultant, Mental Health Disaster Response/Post Deployment Activities/PTSD, OMHS

MH QUERI Subgroup Member Survey Response Items

Subgroup members were asked to rate the following survey items for each prospective focus area using a 5 point Likert-type scale; Strongly Agree, Agree, Neither Agree or Disagree, Disagree, Strongly Disagree.

1. MHQ has an opportunity to make an impact in this area.
2. MHQ has content expertise available in this area.
3. Research in this area addresses VA clinical priorities.
4. Research in this area has shared goals with depression research.
5. Research in this area has shared goals with schizophrenia research.
6. MHQ can develop synergy with activities of other groups working in this area.
7. This is an important topic for MHQ to incorporate into its research portfolio.
8. You have an interest in pursuing research in this area.
9. You know of colleagues or others interested in pursuing research in this area. (If you agree, please list them.)
10. You are willing to mentor a junior investigator in this area (If you agree, list name.)

Appendix B: ICD-9 Codes for SMI

SMITREC - National Psychosis Registry, 2011

Schizophrenic Disorders	Affective Psychoses	Other Diagnoses of Psychosis
295.0 Simple type	296.0 Manic disorder, single episode	297.0 Paranoid state, simple
295.1 Disorganized type	296.1 Manic disorder, recurrent episode	297.1 Paranoia
295.2 Catatonic type	296.4 Bipolar effective disorder, manic	297.2 Paraphrenia
295.3 Paranoid type	296.5 Bipolar effective disorder, depressed	297.3 Shared paranoid disorder
295.4 Acute schizophrenic episode	296.6 Bipolar effective disorder, mixed	297.8 Other specified paranoid states
295.6 Residual schizophrenia	296.7 Bipolar disorder, unspecified	297.9 Unspecified paranoid state
295.7 Schizo-affective type	296.8 Manic depressive psychosis, other and unspecified	298.0 Depressive type psychosis
295.8 Other specified types of schizophrenia		298.1 Excitative type psychosis
295.9 Unspecified schizophrenia		298.2 Reactive confusion
		298.3 Acute paranoid reaction
		298.4 Psychogenic paranoid psychosis
		298.8 Other and unspecified reactive psychosis
		298.9 Unspecified psychosis

Appendix C: Analytic Framework

SMI Health Workstreams	Short-term (≤1 year)	Mid-term (1-3 years)	Long-term (> 3 years)	Outcomes
1. PREVENTIVE CARE /WELLNESS	QUERI SDP: Implementing Effective Collaborative Care for Schizophrenia HSR&D IIR: Implementing Integrated Care for Veterans with SMI QUERI RRP: Life Goals Behavioral Change to Improve Outcomes for Duke ESP Project: Systematic Review of Evidence: PC-MHI for Patients with MH QUERI LIP: Understanding Disparities in Health Care for VA OMHS Re-Engagement Project for Veterans with SMI Who are Lost to Follow-up	HSR&D IIR: Web-Based Delivery of MOVE! To Veterans with SMI	HSR&D IIR: Population-based Outreach Services to Reduce Homelessness among Veterans with SMI HSR&D IIR: Life Goals Collaborative Care to Improve Outcomes for Veterans with SMI QUERI SDP (Planned): PACT to Improve Health Care in People with Serious Mental Illness (SMI-PACT) QUERI SDP (Planned): Impact of Routine Collection of Outcomes Data on Measurement Based Care	Enhance implementation of programs/practices that promote wellness and improve physical health treatment and outcomes for Veterans with SMI Enhance implementation and impact of kiosk systems for routine collection of outcomes data to support measurement-based care of Inform OMHS/OMHO about types of integrated medical care models (e.g., PACT, collaborative care) most appropriate for needs of Veterans with SMI needs and system capacities
2. DISEASE AND MEDICATION MANAGEMENT	OMHS Funded: MIRECC Initiative on Antipsychotic Management Improvement (MIAMI Project) QUERI SDP: Implementing Effective Collaborative Care for Schizophrenia HSR&D Short-Term Project: Management of Metabolic Side-Effects of Antipsychotics in Six VISNS MH QUERI LIP: Correlates of Antipsychotic Prescribing Pathways and Clozapine Under-Utilization HSR&D IIR: Cardiovascular Morbidity and Mortality among Veterans with Schizophrenia	QUERI SDP: Monitoring and Management of Metabolic Effects of Antipsychotics QUERI RRP: Off-Label Use of Antipsychotics: Determinants, Costs, and Impact on Patient Safety HSR&D IIR: Spatiotemporal Spread of Newer Antipsychotics for Bipolar Disorder and PTSD	PACT to Improve Health Care in People with Serious Mental Illness (SMI-PACT) QUERI SDP (Planned): Impact of Routine Collection of Outcomes Data on Measurement-Based Care	Improve cardiometabolic side effect monitoring and management for Veterans taking antipsychotic medications

Appendix D: Workgroup Action Plans

SMI Health

PCMH

Recovery

MH QUERI SMI Health Workgroup Action Plan

DRAFT (12.02.11): DO NOT DISTRIBUTE

Purpose (from Workgroup Charter)

To develop an implementation research agenda and related action plan to promote wellness and improve general medical treatment and outcomes for Veterans with serious mental illness (SMI).

To accomplish this overall purpose, the SMI Health Workgroup proposes to conduct projects and other partnership activities in two integrated workstream areas: 1) Preventive Care / Wellness, and 2) Disease & Medication Management.

In addition, we have identified three cross-cutting emphases for SMI Health that apply across projects:

To develop and implement a communication strategy (e.g., research summary report template, briefing process), to rapidly disseminate findings to VA Central Office Stakeholders

To help inform current initiatives that promote integrated medical and mental health care strategies that improve outcomes for Veterans with mental disorders and are consistent with the goals of current VHA initiatives (e.g., systems redesign, Uniform MH services, and health promotion and disease prevention)

To inform estimates of mental health provider workload and value, and subsequent implementation of evidence-based practices and policies

1. PREVENTIVE CARE / WELLNESS						
Project Type/Title/PI	**Project Description**	**Scope**	**Partners**	**Short-term[1]**	**Medium-term[2]**	**Long-term[3]**
QUERI SDP: Implementing effective collaborative care for schizophrenia (A. Young)	Implementation study using Evidence-Based Quality Improvement (EBQI) approach to implement recovery-oriented services. Focus on wellness intervention and supported employment.	Multiple VISNs, VAMCs	Regional (VISNs)	X		
HSR&D IIR: Web-Based Delivery of MOVE! to Veterans With Serious Mental Illness (A. Young & R. Goldberg)	Test a web-based system to deliver the MOVE! weight management program for Veterans with SMI.	Multiple VAMCs	VISN 5 and 22 MIRECCs		X	

1. PREVENTIVE CARE / WELLNESS						
Project Type/Title/PI	**Project Description**	**Scope**	**Partners**	**Short-term[1]**	**Medium-term[2]**	**Long-term[3]**
HSR&D IIR: Population-based Outreach Services to Reduce Homelessness among Veterans with SMI (A. Kilbourne)	Implement a Navigator outreach program to identify Veterans with SMI and a history of homelessness and route them to services, and determine impact on health services use, housing or other social services as well as decreased mortality	National	National Center on Homelessness Among Veterans, OMHS, 10N			X
HSR&D IIR: Risk of Death Among Veterans with Depression (K. Zivin)	Examine risks and causes of mortality associated with depression; characterize impact of modifiable health behaviors (smoking, drinking, obesity) on relationships between depression and all-cause mortality, mortality from cardiovascular disease, and mortality from cancer; and examine associations between receipt of depression treatment and mortality	National	SMITREC		X	
Office of Mental Health Services Re-Engagement Project for Veterans with SMI who are lost to follow-up (A. Kilbourne, J. Burk, D. Carroll).	Identify Veterans with SMI lost-to follow up and route them to appropriate care	National Directive supported by Undersecretary	OMHS 10NC	X		

2. DISEASE AND MEDICATION MANAGEMENT						
Project Type/Title/PI	**Project Description**	**Scope**	**Partners**	**Short-term[1]**	**Medium-term[2]**	**Long-term[3]**
QUERI SDP: Monitoring and management of metabolic effects of antipsychotics (R. Owen)	Implementation study using EBQI approach with external facilitation to enhance uptake of evidence-based tools & strategies to improve monitoring and management of metabolic side effects of antipsychotics.	Multiple VISNs, VAMCs	OMHS MIAMI Project, VISN 16 and 22 MIRECCs		X	

2. DISEASE AND MEDICATION MANAGEMENT						
Project Type/Title/PI	**Project Description**	**Scope**	**Partners**	**Short-term[1]**	**Medium-term[2]**	**Long-term[3]**
MH QUERI LIP: Understanding Disparities in Health Care for VA Patients with SMI (A. Kilbourne)	Determine the clinical and system factors associated with observed disparities in quality of medical care, including facility organizational factors such as integrated medical care.	National	SMITREC, VA External Peer Review Program (EPRP)	X		
Duke ESP Project: Systematic Review of the Evidence: Mental Health-Primary Care Integration for Patients with Serious Mental Illness (J. Williams)	Evidence synthesis on effects of care models to improve general medical outcomes for individuals with serious mental illness.	National	Durham VA/Duke Evidence-Based Practice Center (Durham)	X		
HSR&D Short-Term Project: Management of metabolic side effects of antipsychotics in six VISNs (R. Owen)	Descriptive analysis of monitoring and management of antipsychotics' metabolic side effects.	Multiple VISNs	Regional (VISNs)	X		
HSR&D IIR: Spatiotemporal spread of newer antipsychotics for bipolar disorder and PTSD (M. Bauer)	Describe the spread of prescribing second generation antipsychotics for bipolar disorder and PTSD.	National	DSS		X	
HSR&D IIR: Implementing Integrated Care for Veterans with Serious Mental Illness (A. Kilbourne)	Determine impact of co-located medical care on quality and outcomes for Veterans with SMI	National	OMHS	X		
HSR&D IIR: Cardiovascular Morbidity and Mortality Among Veterans with Schizophrenia (A. Kilbourne)	Determine modifiable risk factors including medication use on CVD morbidity and mortality in Veterans with schizophrenia	National	OMHS, SMITREC	X		

2. DISEASE AND MEDICATION MANAGEMENT						
Project Type/Title/PI	**Project Description**	**Scope**	**Partners**	**Short-term[1]**	**Medium-term[2]**	**Long-term[3]**
QUERI RRP: Off-Label Use of Antipsychotics: Determinants, Costs, and Impact on Patient Safety (T. Hudson)	Analyze extent of non-justifiable off-label prescribing of antipsychotics, and use findings to inform development of QI interventions or policy approaches for primary prevention of metabolic side effects of these medications.	Multiple VISNs	Regional (VISNs)		X	
MH QUERI LIP: Correlates of Antipsychotic Prescribing Pathways and Clozapine Under-Utilization (M. Meterko & M. Bauer)	Describe pathways of antipsychotic prescribing; compare pathways for clozapine-treated and polypharmacy-treated patients; identify patient characteristics that predict clozapine vs. polypharmacy utilization.	National	COLMR, DSS	X		
QUERI SDP (Planned): Impact of routine collection of outcomes data on measurement-based care (To be determined)	Evaluate implementation and impact of kiosk systems for routine collection of outcomes data to support measurement-based care of Veterans with SMI.	National	To be determined			X

1 & 2 DISEASE AND MEDICATION MANAGEMENT and PREVENTIVE CARE / WELLNESS						
Project Type/Title/PI	**Project Description**	**Scope**	**Partners**	**Short-term[1]**	**Medium-term[2]**	**Long-term[3]**
QUERI RRP: Life goals behavioral change to improve outcomes for Veterans with serious mental illness (A. Kilbourne)	Adapt and test the feasibility of a combined Chronic Care Model-health behavioral change model for the SMI patient population.	Single site pilot	VA Ann Arbor PACT	X		
QUERI SDP: PACT to Improve Health Care in People with Serious Mental Illness (SMI-PACT) (A. Young & A. Cohen)	Develop and demonstrate a PACT model adapted for patients with SMI, and compare outcomes for patients with SMI in “SMI PACT” versus standard PACT.	Multiple VISNs, VAMCs	VISNs 16 and 22 Mental Health Product Lines			X

1 & 2 DISEASE AND MEDICATION MANAGEMENT and PREVENTIVE CARE / WELLNESS						
Project Type/Title/PI	**Project Description**	**Scope**	**Partners**	**Short-term[1]**	**Medium-term[2]**	**Long-term[3]**
OMHS-funded: MIRECC Initiative on Antipsychotic Management Improvement (MIAMI Project) (S. Marder)	Disseminate OMHS recommendations for monitoring and management of antipsychotics' metabolic side effects; Provide technical assistance to the field for quality improvement efforts in this area; pilot demonstration project in 6 VAMCs.	National	OMHS, VISN 16 and 22 MIRECCs, EES, CIDER	X		
HSRD IIR: Life goals collaborative care to improve outcomes for Veterans with serious mental illness (A. Kilbourne)	RCT of Chronic Care Model - health behavioral change program for the SMI patient population.	VAMC	VAMCs			X

[1]Short-term projects and activities will be completed in year 1. [2]Medium-term projects and activities will be completed in years 2-3. [3]Long-term projects and activities will be completed in more than 3 years.

MH QUERI PCMH Workgroup Action Plan

DRAFT (12.02.11): DO NOT DISTRIBUTE

Purpose (from Workgroup Charter)

The purpose of the MH QUERI (MHQ) Primary Care – Mental Health (PCMH) Workgroup focuses on supporting and enhancing implementation of mental health services in primary care settings.

To accomplish this overall purpose, the PCMH Health Workgroup proposes to conduct projects and other partnership activities in two areas:

Evidence-based interventions: Development, implementation and evaluation of evidence-based MH interventions in PC (includes brief EB psychotherapies, treatment of anxiety and PTSD, continuing work in care management [HI-TIDES, HEP-TIDES, etc], patient centered care).

Support implementation of PC-MHI: Activities, mechanisms and resources that support implementation of PC-MHI (includes definitions/guidelines, value/access/re-design, training).

1. Develop, Implement and Evaluate Evidence-Based Interventions						
Project Type/Title/PI	**Project Description**	**Scope**	**Partners**	**Short-term[1]**	**Medium-term[2]**	**Long-term[3]**
QUERI SDP: HIV Translating Initiatives for Depression into Effective Solutions (HI-TIDES) (J. Pyne)	Implementation study adapting and testing the PC collaborative care model for depression in specialty HIV clinics using evidence-based implementation strategies. The intervention improved both depression and HIV symptom outcomes.	VAMC	PHSHG HIV/HCV QUERI	X		
Identify opportunities for understanding, detecting, and/or addressing gender disparities	Seek consultation from Women's Health Research Consortium for enhancing existing projects and/or planning new projects that will understand, detect, and/or address gender disparities	National	Women's Health Research Consortium	X		

1. Develop, Implement and Evaluate Evidence-Based Interventions						
Project Type/Title/PI	**Project Description**	**Scope**	**Partners**	**Short-term[1]**	**Medium-term[2]**	**Long-term[3]**
HSR&D IIR: Telemedicine Outreach for Post Traumatic Stress in CBOCs (J. Fortney)	Effectiveness study evaluating a telemedicine intervention (including off-site care team) to improve PTSD outcomes in CBOCs without on-site psychiatrists.	VAMC	NC-PTSD		X	
QUERI SDP: Implementing Collaborative Care for Depression Plus PTSD in Primary Care (B. Felker)	Implementation study of adaptations to TIDES care management to improve access to evidence-based care for Veterans with depression and comorbid PTSD being treated in PC	VAMC	PC-MHI Program Office, NC-PTSD		X	
QUERI SDP: Hepatitis C Translating Initiatives for Depression Into Solutions (F. Kanwal and J. Pyne)	Implementation study adapting an evidence-based collaborative care depression model in specialty CHC clinics and testing its effectiveness in improving CHC as well as depression care.	VAMC	PHSHG and HIV/HCV QUERI		X	
QUERI RRP: Formative Evaluation of a Brief Intervention for Comorbid Depression and Chronic Pain in PC-MHI (G. Beehler)	Planned project to inform adaptation and implementation of a brief behavioral intervention for comorbid chronic pain and depression in primary care.	VAMC	Regional, OMHS, OMHO, and PCS/Pain Management Program	X		
QUERI RRP: Gaps in Primary Care for Veterans with Dementia (L. Wray)	Planned project that will identify ways PC-MHI staff can support PACT care of older Veterans with dementia in their care of older Veterans in PACT	VISN	Regional, OMHS/ Integrated Care, and PCS/Office of Geriatrics and Extended Care leadership		X	
HSR&D IIR: Evaluating Depression Collaborative Care Using Stepped Designs and Electronic Data (M. Farmer Coste)	Planned re-submission to develop a comparative evaluation strategy for assessing implementation and spread of interventions under naturalistic spread conditions.	National	PC-MHI Program Office		X	

1. Develop, Implement and Evaluate Evidence-Based Interventions						
Project Type/Title/PI	**Project Description**	**Scope**	**Partners**	**Short-term[1]**	**Medium-term[2]**	**Long-term[3]**
QUERI RRP: Pilot Study of a Family/Caregiver Intervention for Depression in Primary Care (N. Niv)	Newly funded feasibility testing of a brief, psycho-educational, family/ caregiver intervention designed to improve effectiveness of TIDES collaborative care in promoting depression treatment adherence and symptom reduction.	VAMC	Facility managers and providers		X	
HSR&D IIR: Cognitive behavioral therapy in primary care: Treating the medically ill (J. Cully)	Effectiveness study assessing a PC-based CBT intervention for medically ill Veterans with COPD and/or heart failure and comorbid symptoms of depression and/or anxiety within the context of PC-MHI.	VAMC	Regional and national (OMHS and OMHO) leaders		X	
QUERI SDP (J. Pyne)	Building on earlier HI-TIDES SDP, apply for funding for study of broader dissemination of depression CCM in HIV clinics	VAMC, VISN	PHSHG and HIV/HCV QUERI			X
QUERI SDP: Effectiveness and implementation of Cognitive Behavioral Therapy in primary care (J. Cully)	Planned hybrid effectiveness-implementation study to evaluate outcomes related to the provision of brief CBT for depression in PC-MHI and develop a replicable implementation strategy to support dissemination of brief CBT across PC-MHI programs nationwide.	VAMC,	Regional and national (OMHS and OMHO) leaders			X
QUERI SDP: Motivational Coaching to Enhance Mental Health Treatment Engagement in OEF/OIF/OND Veterans Using Rural VA CBOCs (K. Seal)	Planned project that will adapt and test a motivational interviewing intervention to enhance OEF/OIF/OND Veterans' access to and retention in treatment for mental health problems, particularly PTSD	VAMC	NC-PTSD			X
As yet to be identified	At least one study focusing on patient self-management	TBD	TBD			X

2. Support Implementation of PC-MHI						
Project Type/Title/PI	**Project Description**	**Scope**	**Partners**	**Short-term[1]**	**Medium-term[2]**	**Long-term[3]**
MH QUERI LIPs: Patient Factors, Treatment Process & Outcomes: Improving Depression Care & Patient Factors, Treatment Process & Outcomes: Improving Mental Health Care in Primary Care (L. Rubenstein)	Secondary analyses of WAVES data to: 1) test whether patients' beliefs about depression and depression care relate to treatment engagement and outcomes, examine employment status and test whether engagement in collaborative care impacts employment status, and test whether patients' views and experiences of social support predicts depression treatment engagement and outcomes over time; and 2) advance understanding of gaps in PCMHI care and study implementation issues in improving care.	National	PC-MHI Program Office and OMHS/OMHO Integrated Care leadership	X		
QUERI SDP: Blended Facilitation to Enhance PCMH Program Implementation (J. Kirchner)	Implementation study testing an external/internal model of facilitation supporting implementation of PC-MHI	VAMC, VISN	VISNs 12, 2	X		
QUERI RRP: Improving Care for Depression: Redesigning Collaborative Care for PTSD and Other Co-morbidities (L. Rubenstein)	Planned secondary analyses of WAVES data to inform and expert panel that will facilitate implementation efforts and will provide key guidance on how CCM for depression care should be adapted to account for individual patient-level characteristics such as those associated with psychiatric comorbidity	National	PC-MHI Program Office and OMHS/OMHO Integrated Care leadership		X	
OMHO Facilitation Training (J. Kirchner)	Train OMHO Technical Assistants in external/internal facilitation to support Uniform Mental Health Services Handbook implementation	National	OMHO & OMHS leadership		X	

2. Support Implementation of PC-MHI						
Project Type/Title/PI	**Project Description**	**Scope**	**Partners**	**Short-term[1]**	**Medium-term[2]**	**Long-term[3]**
Inform implementation of blended PC-MHI models	Collaborate with PC-MHI Program Office to develop clear definition and description of the blended PC-MHI model and the stepped system of care, including recommendations for structure and staffing in various settings.	National	PC-MHI Program Office		X	
Co-develop common nomenclature for PC-MHI domains	Collaborate with PC-MHI Program Office to develop a common nomenclature for the different PC-MHI domains to facilitate better articulation of and research on PC-MHI.	National	PC-MHI Program Office		X	
Planned Expert Panel (PI not identified)	Define key features of collaboration between mental health and primary care, guidelines for achieving it, and standards for success	National	PC-MHI Program Office, OMHS, and OMHO leadership			X
Continue to develop partnership with PC-MHI Program Office	Continue to develop the partnership (linkage) with the PC-MHI Program Office to maximize impact of research on policy and practice and the development of research that will better inform policy and practice.	National	PC-MHI Program Office			X

[1]Short-term projects and activities will be completed in year 1. [2]Medium-term projects and activities will be completed in years 2-3.
[3]Long-term projects and activities will be completed in more than 3 years.

MH QUERI Recovery Workgroup Action Plan

DRAFT (12.02.11): DO NOT DISTRIBUTE

Purpose (from Workgroup Charter):

To implement evidence-based programs or practices that promote recovery for Veterans with mental illness..

To accomplish this overall purpose, the Recovery Workgroup proposes to conduct projects and other partnership activities in coordinated workstream areas: 1) Reduce Homelessness, 2) Increase Family Involvement in Care, 3) Engage Consumers/Peers, 4) Improve Employment Outcomes, 5) Implement Other Programs/Services that Promote Recovery (e.g., Supported Education, Illness Management & Recovery, reduce stigma)

In addition, we have identified emphases for Recovery that apply across select projects:

Support and enhance implementation of recovery-oriented programs and services for vulnerable patient populations (including those with co-occurring mental health and substance abuse (MH/SA) conditions).

Support and enhance implementation of evidence-based psychotherapies in mental health specialty settings.

1. REDUCE HOMELESSNESS						
Project Type/Title/PI	**Project Description**	**Scope**	**Partners**	**Short-term[1]**	**Medium-term[2]**	**Long-term[3]**
QUERI SDP: MISSION-Vet HUD-VASH Implementation Study (D. Smelson)	Test effect of 'Getting to Outcomes' model on implementation of program for Veterans who have experienced homelessness and whose ability to return to independent community living is complicated by co-occurring mental illness and substance abuse	Multiple VAMCs	OMHS, National CHAV, VISN 4 MIRECC, SUD QUERI, HIV/Hepatitis QUERI, CIPRS, CHQOER			X
QUERI RRP: Moving Beyond MHICM: Identifying Factors that Impact Outcomes Following Discharge (E. Bromley)	Identify factors that predict MHICM discharge, with ultimate goal being to help increase MHICM capacity for evidence-based treatment of homelessness	VAMC	GLA MHICM Programs		X	

1. REDUCE HOMELESSNESS						
Project Type/Title/PI	**Project Description**	**Scope**	**Partners**	**Short-term[1]**	**Medium-term[2]**	**Long-term[3]**
QUERI RRP: Identifying the Mental Health Care Priorities of Homeless Women Veterans (R. Henry)	1) Identify, from patient perspective, mental healthcare priorities and treatment preferences of homeless women Veterans; and 2) Identify, from mental health care provider perspective, access issues and barriers to care for homeless women Veterans.	Single site VAMC pilot	VAMC	X		
QUERI RRP: Screening and Referring Women Veterans for Homelessness Vulnerability (D. Washington)	Pilot test implementation of Women Veterans Vulnerability Tool to increase identification and referral of at-risk women Veterans into mental health, social service, and other treatment and preventive services.	VAMCs	Women Veterans Health Strategic Healthcare Group	X		
HSR&D IIR: Improving Outcomes for Homeless Veterans with Peer Support (M. Ellison)	Augment case management component of HUD-VASH for homeless veterans with peer support specialists using the *MISSION-Vet Consumer Workbook*.	Multiple VAMCs	Multiple VAMCs			X
MH QUERI LIP: Project QUEST: A qualitative exploration of self-stigma in treatment engagement of homeless veterans with co-occurring mental health and substance abuse disorders (S. Rodrigues)	Understand factors related to self-stigma in treatment engagement by homeless Veterans with co-occurring mental health and substance use disorders.	VAMC	VAMC, National Center on Homelessness Among Veterans	X		
SAMHSA: Evaluation of New Directions North's Supported Employment Program for Homeless Veterans (A. Hamilton)	Evaluate and provide technical assistance to improve provision of Supported Employment services to Veterans with mental illness and history of substance abuse	VAMC	VAMC (GLA)		X	

1. REDUCE HOMELESSNESS						
Project Type/Title/PI	**Project Description**	**Scope**	**Partners**	**Short-term[1]**	**Medium-term[2]**	**Long-term[3]**
QUERI RRP (planned): Reducing Veteran Homelessness in Los Angeles: Evaluation of Project 60 (N. Armstrong)	Evaluate implementation and effectiveness of "Vets to Home Project 60", an initiative which involves a collaborative effort between the VA West Los Angeles and other government and non-profit agencies to provide permanent supported housing to the 60 most vulnerable homeless Veterans on the Westside of Los Angeles.	VAMC	VAMC		X	
QUERI RRP (planned): Developing a HUD-VASH Toolkit Fidelity Measure (M. Chinman)	A HUD-VASH Toolkit has been developed to help HUD-VASH programs implement their programs with greater fidelity. This RRP will create a psychometrically sound measure to assess fidelity to the HUD-VASH model and gather feedback from HUD-VASH staff to inform refinements to the Toolkit and/or the creation of additional implementation supports.	TBD	TBD		X	

2. INCREASE FAMILY INVOLVEMENT IN CARE						
Project Type/Title/PI	**Project Description**	**Scope**	**Partners**	**Short-term[1]**	**Medium-term[2]**	**Long-term[3]**
HSR&D IIR: The Effectiveness of FMPO in Improving the Quality of Care for Persons with Severe Mental Illness (L. Dixon)	Test effectiveness of an innovative, structured, brief and manualized family engagement intervention for Veterans with SMI.	Multiple VAMCs	Multiple VAMCs	X		
HSR&D IIR: Perspectives on Enhancing Family Involvement in Treatment for PTSD (E. Fischer)	Describe needs and preferences of OIF/OEF Veterans with PTSD and their families relevant to family involvement in care.	Multiple VAMCs	Regional (Multiple VISN 16 VAMCs)	X		

2. INCREASE FAMILY INVOLVEMENT IN CARE						
Project Type/Title/PI	**Project Description**	**Scope**	**Partners**	**Short-term[1]**	**Medium-term[2]**	**Long-term[3]**
QUERI RRP: Family/Caregiver Intervention for Major Depression in Primary Care (N. Niv)	Test feasibility of a family/caregiver intervention that could be used to improve effectiveness of TIDES in promoting recovery and reducing relapse in major depression.	Multiple VAMCs	Regional (Multiple VISN 22 VAMCs)	X		
QUERI RRP (planned): Gaps in engaging and optimizing military family involvement in care (A. Waliski)	Assess gaps, barriers and facilitators to involving military families in mental health care	National	TBD		X	

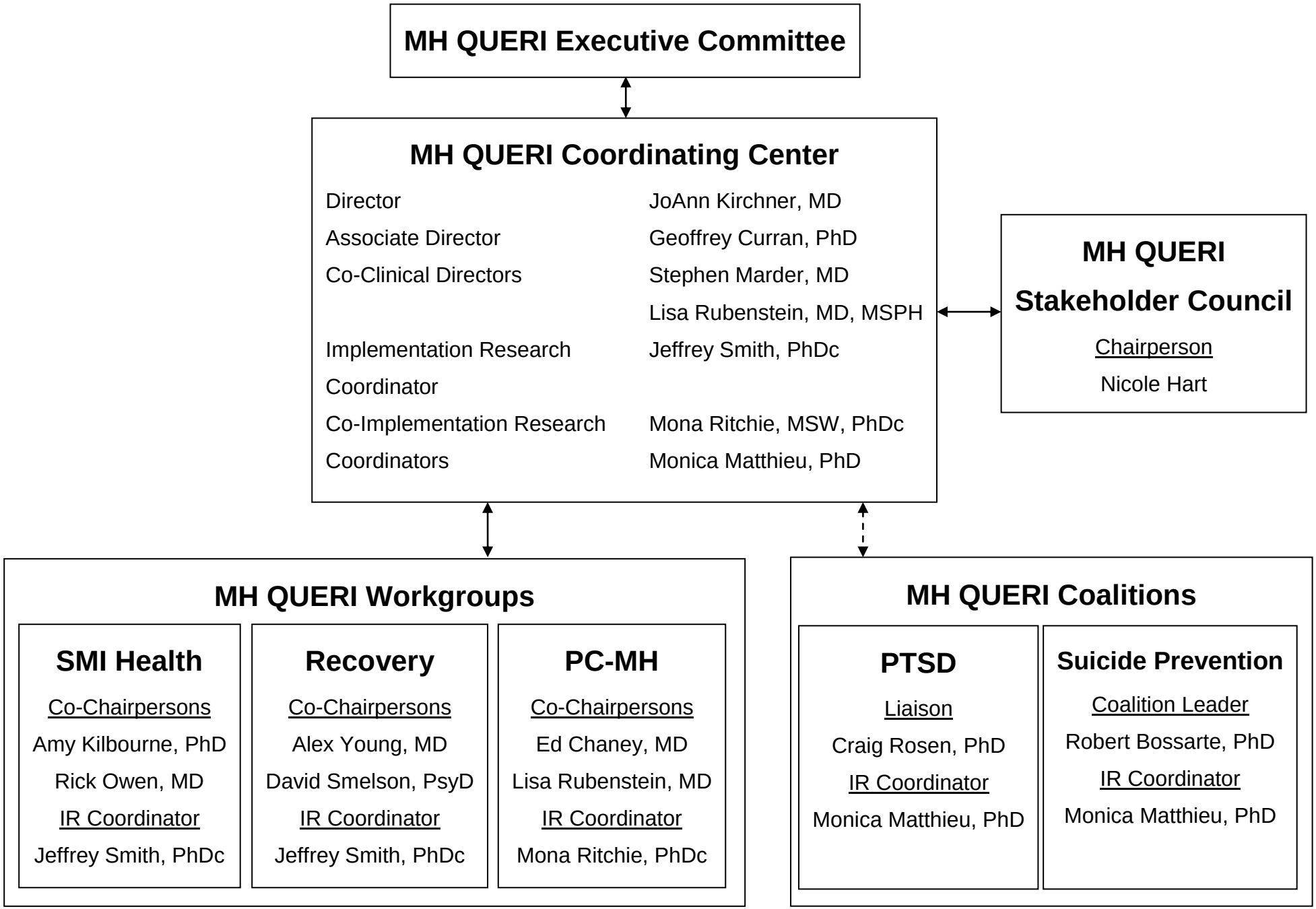
3. ENGAGE CONSUMERS / PEERS						
Project Type/Title/PI	**Project Description**	**Scope**	**Partners**	**Short-term[1]**	**Medium-term[2]**	**Long-term[3]**
HSR&D IIR: Promoting Recovery Using Mental Health Consumer Providers (M. Chinman)	Test impact of implementation of consumer provider services on patient-level and team-level outcomes on six MHICM teams in VISN 22	Multiple VAMCs	Regional (Multiple MHICM teams in VISN 22 VAMCs)	X		
South Central MIRECC-funded Project: Involving Veteran Consumers in Mental Health Quality Improvement (J. Kirchner)	Identify promising strategies and approaches for increasing involvement of Veteran mental health care consumers in quality improvement activities.	Multiple VAMCs	VISN 16 MIRECC	X		
Office of Mental Health Services Re-Engagement Project for Veterans with SMI who are lost to follow-up (A. Kilbourne, J. Burk, D. Carroll).	Identify Veterans with SMI lost-to follow up and route them to appropriate care	National Directive supported by Undersecretary	OMHS 10NC	X		

4. IMPROVE EMPLOYMENT OUTCOMES						
Project Type/Title/PI	**Project Description**	**Scope**	**Partners**	**Short-term[1]**	**Medium-term[2]**	**Long-term[3]**
QUERI SDP: Implementing effective collaborative care for schizophrenia (A. Young)	Implement and test a chronic care model for schizophrenia to support recovery-oriented care delivery (including supported employment)	Multiple VISNs, VAMCs	Regional (VISNs)	X		
QUERI RRP: VA Vocational Services for OEF/OIF Veterans with Mental Health Conditions (E. Twamley)	Identify barriers to OEF/OIF Veteran engagement and retention in VA vocational services, as well as barriers to implementation of recovery-based, evidence-based vocational services	National and Multiple VAMCs	AITC, NEPEC, Multiple VAMCs	X		

5. OTHER						
Project Type/Title/PI	**Project Description**	**Scope**	**Partners**	**Short-term[1]**	**Medium-term[2]**	**Long-term[3]**
QUERI RRP: Supported Education for OI/EF Veterans with Disabilities (M. Ellison)	Develop a culturally-informed supported education practice curriculum and implementation guidelines that support OIF/OEF Veterans with disabilities in successfully utilizing post-secondary education benefits	VAMC	VAMC	X		
VA HSR&D PPO: Supporting Education Goals of OIF/OEF Veterans with PTSD: Pilot Process and Outcome (M. Ellison)	Gather data on feasibility and effect size necessary for full scale trial of a supported education service for OIF/OEF Veterans with PTSD	VAMC	VAMC	X		
QUERI RRP: Process Evaluation of Illness Management & Recovery (IMR) in VA Mental Health Services (A. McGuire)	Assess penetration of IMR program within VA mental health services; and identify facilitators and barriers to implementing IMR within mental health services	National	Local recovery coordinators, PRRCs	X		

[1]Short-term projects and activities will be completed in year 1. [2]Medium-term projects and activities will be completed in years 2-3.
[3]Long-term projects and activities will be completed in more than 3 years.

APPENDIX E: Organizational Chart



Appendix F: Performance Measures

				Timeline
Goal 1: Support and enhance implementation of evidence-based practices – as well as promising and emerging clinical practices that address high priority system needs – for Veterans with mental health conditions				FY2012-2016
Objectives	Scope	Project	Metric Data Source	
Center Activities/Project Outcomes				
Facilitate dissemination of MIAMI Project recommendations and increase QI activities to improve patient safety with regard to monitoring and management of metabolic side effects of antipsychotics.	Multiple VISNs, VAMCs	SDP 08-375	SDP 08-375	FY 2010-2014
In partnership with OMHS, create web-based "CBT Basics" course to be made available nationwide to all mental health therapists seeking to learn CBT.	VA	SDP 07-319	SDP 07-319	FY2012
Identify organizational and provider level factors associated with implementation of suicide prevention nomenclature (ie, Self-Directed Violence Classification System)	Multiple VISNs, VAMCs	RRP 09-135	Planned SDP	FY 2012-2015
Identify barriers and facilitators associated with implementing measurement-based care for Veterans with PTSD	Multiple VISNs	Planned SDP	Planned SDP	FY 2013-2014
Develop external-internal facilitation strategy training materials and provide training to OMHO personnel to enhance UMHS implementation nationally	National	SDP 08-316	Documentation of training and site visits	2012-2013
Clinical Process Outcomes				
Demonstrate impact of MIAMI and AMMP projects on implementation of recommended monitoring and clinical management for weight gain, hyperglycemia, and dyslipidemia	Multiple VISNs	SDP 08-375	SDP 08-375 and MIAMI Project dataset	FY2012-2014
Identify barriers and facilitators to implementation of a brief CBT intervention for depression in primary care settings	Multiple VA Facilities	IIR 09-088	Planned SDP	2015
Identify barriers and facilitators associated with incorporating PTSD into the TIDES depression care management program.	Multiple VA Facilities	SDP 09-402	SDP 09-402	2013
Clinical Outcomes				
Improve housing, substance abuse, mental health, and functioning outcomes in eligible Veterans who receive MISSION-Vet program with adequate fidelity (with fidelity expected to be greater among those exposed to GTO intervention).	Multiple VAMCs	SDP 11-240	SDP 11-240	FY2012-2015