ISSUE BRIEF

Fixing Behavioral Health Care in America

A National Call for Integrating and Coordinating Specialty Behavioral Health Care with the Medical System

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*Note: The Kennedy Forum hosted several focus groups to discuss integration and collaborative care opportunities in the behavioral health field. This list is not exhaustive of all focus group participants. In addition, focus group participation does not mean a formal endorsement of The Kennedy Forum recommendations or this issue brief by the attending organizations.

Executive Summary

One in four individuals will struggle with a mental health or substance use disorder at some point in their lives. In fact, these disorders are responsible for nearly 25% of all worldwide disability as well as substantial increases in overall health care costs. Although effective treatments exist for most behavioral health conditions, many people don't receive the care they need due to lack of access, poor quality care and ineffective coordination between the medical and behavioral systems.

Data from the National Comorbidity Study show that access to behavioral health treatment is limited. Only 40% of people with a mental health or substance use disorder receive treatment in any given year, meaning that 60% of people are not getting any treatment at all. Only 12% receive care from a psychiatrist, and only 22% receive care from any mental health specialist. Slightly more (23%) are treated by a primary care provider or other general medical provider.

While barriers such as long wait times, cost and stigma surrounding mental illness explain why so few people access specialty care, the reality is that the specialty mental health care system is underequipped to treat the vast number of people with mental health and substance use disorders. More than half of counties in the U.S. do not have a single practicing mental health professional, a problem particularly acute in rural areas.

Primary care has become the de facto location for these patients to receive treatment, but unfortunately, the majority of their care is suboptimal due to time constraints and lack of access to behavioral specialists that could enhance their services. Only 13% of people diagnosed with a behavioral health condition receive minimally adequate treatment in a general medical setting; for substance abuse, that number drops to a dismal 5%.

Numerous studies show that primary care providers (PCPs) often do not have the time or resources to provide effective treatment for many behavioral health conditions, including depression, anxiety disorders, post-traumatic stress disorder, substance use and bipolar disorder. Less than 20% of PCPs feel "very prepared" to identify substance use disorders, and most patients with a substance use disorder say their primary care provider did nothing to address their disorder. Of the millions of people who receive an antidepressant each year, many do not receive them in sufficient doses or take them for a long enough amount of time to be effective.

Conversely, many patients in behavioral health homes with serious mental illnesses (SMIs), including schizophrenia, bipolar disorder and schizoaffective disorder, are not getting effective medical care. Patients with SMIs die at rates two to three times higher than in the general population. The implications of untreated medical conditions in specialty mental health combined with untreated behavioral health conditions in primary care are enormous, leading to missed suicide warnings, clogged emergency rooms, high hospital readmission rates and structural and financial strains on the entire health care system. Patients with mental health and substance use disorders have two to three times higher overall health care costs than those without.

No one part of the health care delivery system is equipped to provide effective care for all those with behavioral health problems. Although improvement is needed across the entire spectrum, especially in terms of the coordination of handoffs and improved medical care for SMI patients, **strengthening the behavioral health care services in primary care is critically needed for four reasons:**

1. **The majority of people with behavioral health conditions get their mental health care in primary care**
2. **The quality of behavioral health care in primary care is often suboptimal due in part to lack of access to behavioral experts**

3. **There are now excellent evidenced-based interventions that add behavioral health expertise to primary care practices that can significantly improve outcomes**
4. **Effectively treating patients with behavioral health conditions within primary care offers enormous medical cost savings and improved patient satisfaction.**

Researchers and clinicians have looked at ways to improve the detection and treatment of mental health disorders in primary care settings for over thirty years. Efforts initially focused on screening for common mental disorders, co-location of mental health providers in primary care clinics, provider education and training, facilitated referral to mental health specialty care and disease management. These approaches, alone and in combination, have not been found to improve patient outcomes. **Although other promising approaches are emerging, the Collaborative Care model has the most robust evidence for effective integration of behavioral health care into primary care.**

COLLABORATIVE CARE

Collaborative Care is a specific type of integrated care that treats common mental health and substance use conditions such as depression and anxiety in primary care settings. In usual primary care, the treatment team has two members: the primary care provider and the patient. Collaborative Care adds two additional vital roles: a care manager (typically embedded) and a psychiatric consultant (typically engaged by phone or video link). Collaborative Care is:

- Team-based, led by a primary care provider with support from a care manager and consultation from a mental health specialist who provides treatment recommendations for patients who are not achieving clinical goals;
- Population-based, whereby the care team uses a registry to monitor treatment engagement;
- Patient-centered, with proactive outreach to engage, activate, promote self-management and treatment adherence and coordinate services;
- Measurement-based, with screening and monitoring of patient-reported outcomes over time to assess treatment response;
- Evidence-based, with demonstrated cost-effectiveness in diverse practice settings and patient populations;
- Practice-tested, with sustained adoption in hundreds of clinics across the country; and
- Accountable for the care provided and for continuous quality improvement to meet care goals.

The evidence behind Collaborative Care is clear and compelling. **More than 80 randomized controlled trials have shown Collaborative Care to be more effective than usual care for common mental health conditions such as depression and anxiety.** Several recent meta-analyses, including

a 2012 Cochrane Summary that reviewed 79 randomized controlled trials and 24,308 patients worldwide, further substantiated the model. Collaborative Care has been developed in multiple settings and research protocols in the U.S. and around the world. The research is particularly strong for depression, but increasingly for other conditions as well including anxiety disorders, posttraumatic stress disorder and comorbid medical conditions such as heart disease, diabetes and cancer. Research shows Collaborative Care improves patient functioning at home and at work, reduces disability, improves clinical outcomes and increases patient satisfaction and quality of life. Although the research evidence on Collaborative Care's ability to effectively treat substance use disorders is less extensive, people who have comorbid mental health and substance use problems can benefit from Collaborative Care. Some mature Collaborative Care programs handle a variety of substance use disorders, and alcohol screening and brief interventions are effective for decreasing alcohol use in patients with risky drinking and can be easily incorporated into Collaborative Care programs. In addition, Collaborative Care programs can engage patients in care for alcohol use disorders when they are not ready for specialty treatment.

Collaborative Care not only improves patient care experiences and health outcomes, but it also reduces overall health care costs. Results from the largest trial of Collaborative Care to date, the Improving Mood – Promoting Access to Collaborative Treatment (IMPACT) study for depression care that tested the model on older adults treated in primary care clinics in five states, found substantial reductions in long term overall health care costs in patients who had received Collaborative Care. The overall return on investment was $6 in health care costs saved for each dollar spent on depression care.

In short, there is extensive evidence that Collaborative Care for common behavioral health conditions results in improved clinical outcomes, increased patient satisfaction and reduced overall health care costs—the Triple Aim of health care reform.

OVERALL RECOMMENDATIONS

The Kennedy Forum strongly endorses the following policies:

1. **Wide Implementation of the Collaborative Care Model**. Primary care clinics should implement the Collaborative Care model to treat patients with common mental health disorders due to its proven effectiveness in improving clinical outcomes, increasing patient access and satisfaction and lowering overall health care costs.
2. **Promotion of Evidence-Based Treatments for Patients with Both Mental Health and Substance Use Disorders within the Collaborative Care Model**. Primary care clinics that treat patients with comorbid mental health and substance use problems should incorporate evidence-based brief interventions, such as "Screening, Brief Intervention, and Referral

to Treatment" (SBIRT), into the Collaborative Care model to improve the outcomes for patients with addictions. Care management programs that create treatment plans that incorporate and factor in a patient's comorbidities will have the most success.

3. **Integration with Primacy Care is High Priority Even for the Severe Behavioral Health Cases.** Specialty mental health providers who treat patients with severe and persistent medical illness should integrate and/or coordinate with the general medical system to improve the treatment of the medical conditions of these patients. Those models that show a positive evidence-base should be expanded.
4. **Implementation of Ongoing Coordination of Care is Paramount**. All parts of the health care system should provide effective coordination and transitions of care for the patients they serve who have mental health and substance use problems. For example, someone who is discharged from an emergency room or a psychiatric hospital needs effective follow-up, and programs should assure that referrals to effective behavioral care are successfully completed.

The main barriers to achieving the above recommendations are: 1) an absence of a payment structure that supports evidence-based integrated care practices for treating mental health and substance use disorders in primary care; 2) a lack of a large enough mental health workforce skilled in supporting primary care providers; and 3) a lack of support by some primary care practices to implement Collaborative Care.

Widespread adoption of our recommendations will require engagement at all levels of the health care system; opportunities abound for diverse stakeholders to advance, promote and support this evidence-based model.

The Kennedy Forum offers several key additional recommendations as detailed below.

Payers and Purchasers

Under traditional fee-for-service payment models, key components of effective integrated care approaches like Collaborative Care are generally not reimbursable. Payers, purchasers and regulators need to:

- Improve Reimbursement Methodologies
- Promote Implementation through Incentives
- Implement Quality Benchmarking
- Create Patient Registries
- Develop Accreditation Standards

Providers and Provider Organizations

Collaborative Care has many benefits to medical providers, including better patient outcomes, increased patient satisfaction and lower overall health care costs. Providers and provider organizations need to:

- Increase Awareness
- Promote Enhanced Reimbursement Methodologies
- Report on Outcomes
- Implement a Synergistic Environment

Integrated care awareness and skills should be part of the health professional training program.

- Promote Early Behavioral Health Training
- Use a Team-Based Approach
- Implement an Interdisciplinary Approach
- Leverage and Share Existing Best Practices
- Develop Interdisciplinary Certification Standards

Patients and Patient Advocacy Groups

Although Collaborative Care has been proven to result in greater access, higher patient satisfaction and better patient outcomes, few patients know about the model as an option to help them overcome their mental health and substance use disorders:

- Behavioral health and consumer advocates should educate consumers about Collaborative Care and coach them to ask for this type of care.
- Patients and their family members should understand the value of and ask for Collaborative Care and expect remission from their symptoms.

The Issue Brief:
Fixing Behavioral Health Care in America

A National Call for Integrating and Coordinating
Specialty Behavioral Health Care with the Medical System

Background

Behavioral health problems such as depression, anxiety and alcohol or substance abuse are among the most common and disabling health conditions worldwide. One in four individuals will struggle with a mental health or substance use disorder at some point in their lives. In fact, these disorders are responsible for nearly 25% of all disability worldwide as well as substantial increases in overall health care costs.[1,2] Although effective treatments exist for most behavioral health conditions, many people do not receive the care they need due to lack of access, poor quality care and ineffective coordination between the medical and behavioral health care systems.

Limited Access to Mental Health Providers

Data from the National Comorbidity Survey Replication show that access to behavioral health treatment is limited. Only 36% of people with a current mental health or substance use disorder receive clinical care in any given year, meaning that nearly two thirds of people are not getting any treatment at all.[3] Only 12% receive care from a psychiatrist (i.e. a qualified medical doctor who specializes in treating mental health problems and can prescribe medications), and only 22% receive care from any type of mental health specialist. Slightly more (23%) are treated by a primary care provider or other general medical provider.[4]

In a recent study examining access to psychiatry in three urban areas, only **26%** of psychiatrists in a major insurer's data base accepted new patients, and the average wait time for an appointment was **25** days.

In most parts of the country, the specialty mental health care system is underequipped to treat the vast number of people with mental health and substance use disorders. **More than three-quarters of counties in the United States have a serious shortage of mental health professionals, a problem particularly acute in rural and low-income areas.[5]** In a recent study examining access to psychiatry in three urban areas, only 26% of psychiatrists in a major insurer's data base accepted new patients, and the average wait time for an appointment was 25 days. [6]

These access challenges may have only increased with the Affordable Care Act (ACA) and Medicaid expansion. The ACA has created new or better mental health care coverage for millions of patients, but the existing specialty mental health care system is already at, or beyond, capacity. Increasing the number of available specialty mental health providers is challenging and would only make a small dent in the large unmet need for mental health care. The simple truth is we will never have enough mental health providers to meet the mental health needs of most Americans under a traditional model of referral to mental health specialty care.

The Importance of Primary Care

Lack of access is also a major reason why primary care practices have long been recognized as the de facto location of care for most adults in the U.S. with common mental and behavioral health disorders. In fact, most Americans receive their mental health care in primary care. [7,8]

Many patients also prefer a holistic approach in which providers address both their behavioral and physical health needs in primary care settings. A 2015 survey found that six in ten low-income Californians would rather discuss behavioral health issues with a professional at their primary care facility than receive mental health services off-site.[9] Older adults, in particular, prefer treatment of mental disorders in primary care; when they are referred to mental health specialists, no more than half complete such a referral.[10]

Most Americans receive their mental health care in primary care.

Treatment Effectiveness Remains a Concern

While many patients improve when they receive evidenced-base psychiatric care, only one third of people diagnosed with a mental illness receive minimally adequate treatment. This problem is even more challenging in primary care. Although many primary care providers are trained to make an initial mental health assessment and to start treatments, they often lack the time and skills required to fully explore a patient's mental health problem, and primary care providers report serious limitations in the support available from mental health specialists.[11] Less than 20% of primary care providers feel "very prepared" to identify substance use disorders, and more than half of patients with a substance use disorder say their primary care provider did nothing to address their disorder.[12] Of the millions of people who receive an antidepressant each year, many do not receive them in sufficient doses or take them for a long enough amount of time to be effective.

In the U.S., someone dies from suicide every 14 minutes.

The end result is that only 13% of people diagnosed with a behavioral health condition receive minimally adequate treatment in a general medical setting; for substance abuse, that number drops to a dismal 5%.[13] Sadly, this ineffectiveness has been true for over twenty years. When behavioral health problems are not effectively treated, they can lower adherence to medical treatments[14], leading to poorer health outcomes[15], and higher death rates[16], especially if they co-occur with chronic medical diseases. Too often, the tragic outcome is suicide; in the U.S. someone dies from suicide every 14 minutes.[17]

Conversely, many patients in behavioral health homes with serious mental illnesses (SMIs), including schizophrenia, bipolar disorder and schizoaffective disorder, are not getting effective

medical care. Patients with SMIs die at rates two to three times higher than in the general population; this translates to a 13-30 year shortened life expectancy in SMI patients.[18] Increased morbidity and mortality in persons with severe mental illnesses are due in large part to preventable medical conditions.[19]

The Impact of Poor Behavioral Health

Researchers and clinicians have looked for ways to improve the detection and treatment of mental health disorders in primary care settings for over thirty years. The implications of untreated or under-treated medical conditions in specialty mental health care combined with untreated behavioral health conditions in primary care are enormous, leading to clogged emergency rooms, high hospital readmission rates and structural and financial strains on the entire health care system.

In a national survey, 60% of physicians reported that the increase in psychiatric patients seeking care at Emergency Departments (ED) is negatively affecting access to emergency care for all patients by generating longer waiting times and limiting the availability of ED staff and ED beds for other patients.[20] Hospital readmission rates are often driven by mental health and/or substance abuse disorder as they are the most frequent conditions associated with potentially preventable readmissions (hospital readmissions that could be prevented with appropriate follow-up and outpatient care, particularly among Medicaid fee-for-service recipients).[21]

Table 1: Impact of Behavioral Health Diagnosis on Costs

POPULATION	% WITH BEHAVIORAL HEALTH DIAGNOSIS	PMPM WIHTOUT BH DIAGNOSIS	PMPM WITH BH DIAGNOSIS	INCREASE IN TOTAL PMPM WITH BH DIAGNOSIS
Commercial	14%	$340	$941	276%
Medicare	9%	$583	$1429	245%
Medicaid	21%	$381	$1301	341%
All Insurers	**15%**	**$397**	**$1085**	**273%**

Poor mental health is associated with decreased work productivity and substantial increases in overall health care costs, especially for patients who have medical and comorbid mental health/substance use disorders.[22] The additional health care costs incurred by people with behavioral comorbidities were estimated to be $293 billion in 2012 across commercially-insured, Medicaid and Medicare beneficiaries in the United States.[23]

For example, Medicaid patients with major depression in addition to a chronic medical condition such as diabetes have over twice the overall health care costs than those without depression[24], and the 14% of insured patients with a behavioral health diagnosis account for a 276% increase in total health care costs (see Table 1).[25] A recent report by the Government Accountability Office showed that Medicaid enrollees with mental health conditions consistently account for a much larger proportional share of overall expenditures on health services each year.[26] **In short, more effectively integrating behavioral health care could save billions of dollars while improving our nation's overall health.**

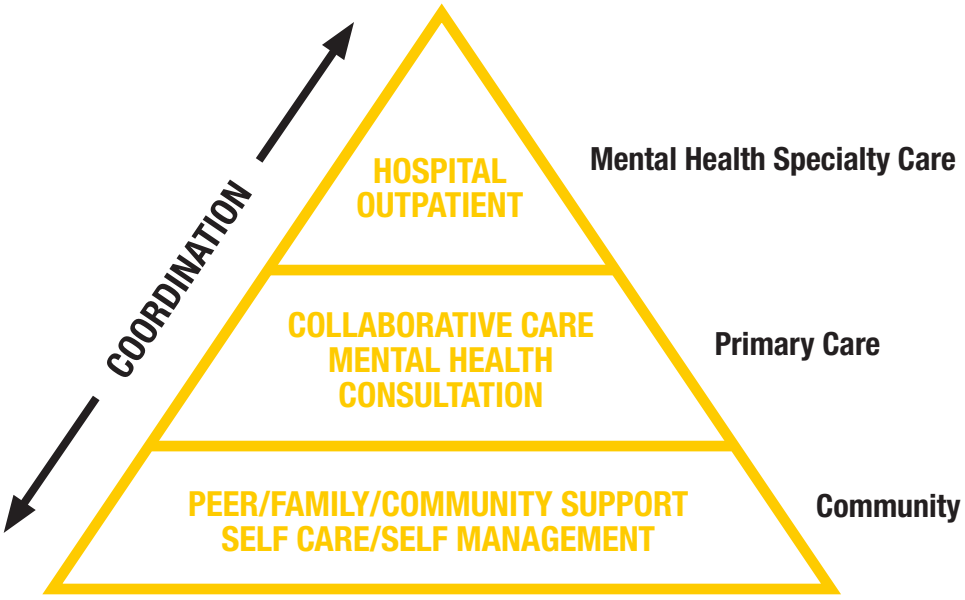

Figure 1: Task Sharing in Behavioral Health Care

Filling the Gaps through Primary Care

No one part of the health care delivery system is equipped to provide effective care for all those with behavioral health problems, but promising programs are emerging that need to be nurtured

and expanded. **Although improvement is needed across the entire spectrum, especially in terms of the coordination of handoffs and improved medical care for SMI patients, strengthening the behavioral health care services in primary care is critically needed for four reasons:**

1. **The majority of people with behavioral health conditions get their care in primary care**
2. **The quality of behavioral health care in primary care is often suboptimal due in part to lack of access to behavioral experts**
3. **There are now excellent evidenced-based interventions that add behavioral health expertise to primary care practices that can significantly improve outcomes**
4. **Effectively treating patients with behavioral health conditions within primary care offers enormous medical cost savings and improved patient satisfaction.**

Offering mental health care in primary care is convenient for patients, reduces the stigma associated with treatment for mental disorders as well as the travel burden in rural areas, builds on existing provider-patient relationships and improves care for the millions of patients who have both physical health and behavioral health disorders. Moreover, a large proportion of patients prefer to receive their mental health care in primary care. Primary care is not expected to be the place where all people with mental health disorders receive their mental health care; there will always be a need for specialty mental health clinics to meet the needs of those who require more intensive and/or ongoing care. Still, by virtue of the fact that primary care is often the entry point for care, the setting offers an ideal situation to provide effective behavioral health care to a large number of people.

Efforts initially focused on screening for common mental disorders, co-location of mental health providers in primary care clinics, provider education and training, facilitated referral to mental health specialty care and disease management. **Research has shown that these approaches, alone and in combination, do not improve patient outcomes** (see Appendix A).

Other approaches, such as the Behavioral Health Consultant (BHC) model, where embedded mental health providers maintain open access, have little research evidence to support their effectiveness, but have substantial practice-based evidence (see Appendix B). Medical groups should be wary of spending limited resources or implementing partial or untested solutions, and instead should implement proven interventions.

Collaborative Care

Although other promising approaches are emerging, the Collaborative Care model has the most robust evidence for effective integration of behavioral health care into primary care, the setting where the largest number of patients with mental health and substance use disorders is treated.

Collaborative Care is a specific type of integrated care that operationalizes the principles of the chronic care model to improve access to evidence-based mental health treatments for primary care patients. The chronic care model, as described by Wagner et. al.[27], is an organized approach to treating chronic illnesses intended to produce effective interactions between proactive, prepared practice teams and informed, activated patients who are engaged in their care. In usual primary care, the treatment team has two members: the primary care provider and the patient. Collaborative Care adds at least two additional vital roles: a behavioral health professional who functions as a care manager (typically embedded) and a psychiatric consultant (typically engaged by phone or tele-video link).

Collaborative Care is:

- Team-based, led by a primary care provider with support from a care manager and consultation from a mental health specialist who provides treatment recommendations for patients who are not achieving clinical goals;
- Population-based, whereby the care team uses a registry to monitor treatment engagement;
- Patient-centered, with proactive outreach to engage, activate, promote self-management and treatment adherence and coordinate services;
- Measurement-based, with screening and monitoring of patient-reported outcomes over time to assess treatment response;
- Evidence-based, with demonstrated cost-effectiveness in diverse practice settings and patient populations;
- Practice-tested, with sustained adoption in hundreds of clinics across the country; and
- Accountable for the care provided and for continuous quality improvement to meet care goals.

The Treatment Team

In addition to the primary care provider (PCP), Collaborative Care involves a trained behavioral health care manager (e.g., clinical social worker, licensed counselor, nurse or psychologist) who supports the PCP in caring for patients with common mental health conditions. In addition,

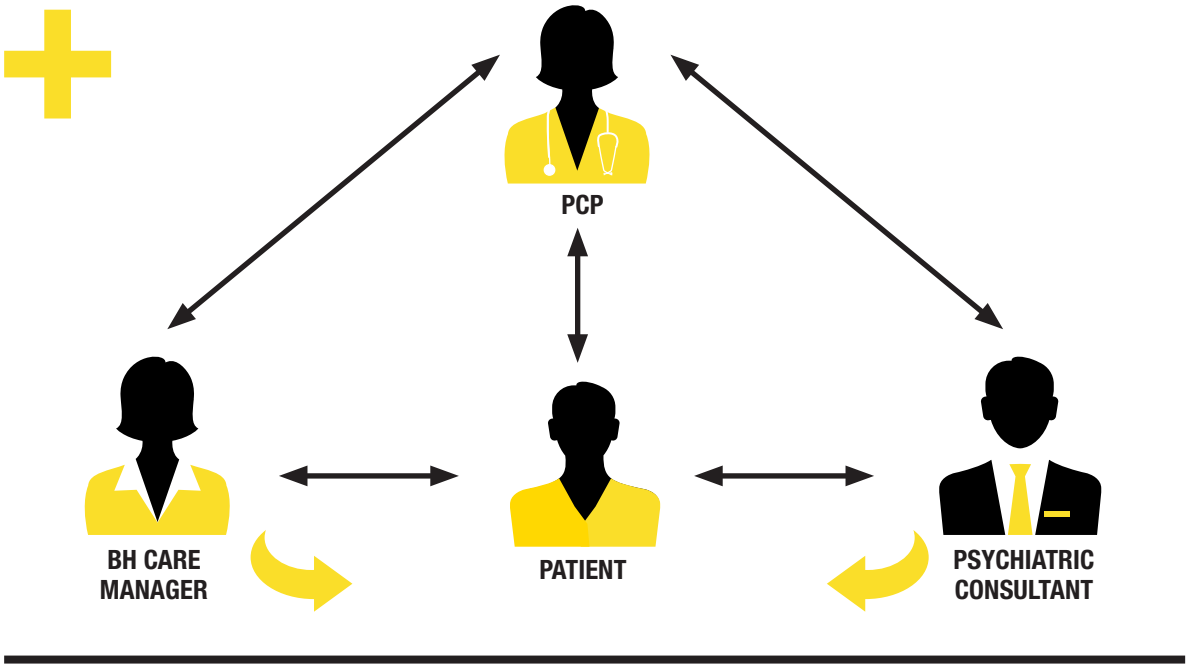

Figure 2: The Collaborative Care Treatment Team

the PCP and the care manager are supported by a psychiatric consultant who typically consults with the care manager weekly to review the treatment plan for patients who are new or who are not improving as expected. The psychiatric consultant is available to make treatment recommendations to the PCP and/or to see challenging patients for in-person or tele-video consultation, if needed.

In the IMPACT study, the overall return on investment was **$6** in health care costs saved for each dollar spent on depression care.

The care manager is typically embedded in the primary care practice, whereas the psychiatric consultant consults by phone and is typically not co-located, although he/she can be. Growing evidence suggests that non-embedded care managers can also be effective, particularly in rural areas.[28] A recent study also reported significantly greater improvement in symptoms and significantly fewer antidepressant-related side effects for patients receiving telemedicine-based Collaborative Care than for patients receiving low-intensity, practice-based Collaborative Care.[29] For further descriptions of the care manager role and the psychiatric role, see Appendices C and D.

Using a Registry

The measurement-based, treatment-to-target approach critical to Collaborative Care is often facilitated by a registry, where patient care is tracked and documented. Registries drive proactive care by structuring encounters with patients, identifying those who are not improving, prompting

changes in treatment and tracking effectiveness across different providers and caseloads—all while making the work of each team member more efficient and effective. They also track whether or not clinical targets are being met. Registries also can be useful when using population-based management strategies in conjunction with the Collaborative Care practice model.

The Evidence Base

The evidence behind Collaborative Care is clear and compelling. **More than 80 randomized controlled trials have shown Collaborative Care to be more effective than usual care for common mental health conditions such as depression and anxiety**. Collaborative Care has been further substantiated by several recent meta-analyses, including a 2012 Cochrane Summary that reviewed 79 randomized controlled trials and 24,308 patients worldwide that concluded that "Collaborative Care is associated with significant improvement in depression and anxiety outcomes compared with usual care, and represents a useful addition to clinical pathways for adult patients with depression and anxiety."[30]

The core components of Collaborative Care have been extensively validated and adopted in multiple practices, non-academic settings and research protocols in the U.S. and around the world. The research is particularly strong for depression, but increasingly for other conditions as well including anxiety disorders, post-traumatic stress disorder and comorbid medical conditions such as heart disease, diabetes and cancer. **Although Collaborative Care was first proven effective for adults, it has now been proven effective for patients ranging from adolescence to late-life.**

Large scale clinical and research initiatives on Collaborative Care have been conducted:

- In diverse health care settings, including different network and staff model health systems as well as private and public providers;
- With diverse financing mechanisms, including fee-for-service and capitation;
- With different provider practice sizes in both rural and urban locations; and
- With different populations, including both insured and uninsured/safety-net populations.

Of note, several studies demonstrated that Collaborative Care programs are not only highly effective for safety net patients and patients from ethnic minority groups, but can also reduce health disparities observed in such populations.[31,32,33,34] Most of the evidence demonstrates the effectiveness of Collaborative Care in primary care, but researchers are exploring other settings as well, such as school-based health centers, specialty medical care programs and emergency rooms. Research shows that Collaborative Care improves patient functioning at home and work, reduces disability, improves clinical outcomes and increases patient satisfaction and quality of life.[35]

In addition, Collaborative Care is recognized as an evidence-based practice by SAMHSA's National Registry of Evidence-Based Programs and Practices (NREPP) and is recommended by the American Psychiatric Association (APA) as an important approach to improving access to effective treatment. A recent brief from the Centers for Medicare and Medicaid Services summarizes the evidence-base for Collaborative Care.[36]

Reducing Costs

Collaborative Care not only improves patient care experiences and health outcomes, but it also reduces overall health care costs in the long run. Results from the largest trial of Collaborative Care to date, the Improving Mood – Promoting Access to Collaborative Treatment (IMPACT) study for depression care that was tested in primary care clinics in five states, found substantial reductions in long term overall health care costs in patients who had received Collaborative Care compared to those receiving usual care.[37] The overall return on investment was $6 in health care costs saved for each dollar spent on depression care.

In short, there is extensive research and practice evidence that Collaborative Care for common mental health conditions results in improved clinical outcomes, increased patient access and satisfaction and reduced overall health care costs—the Triple Aim of health care reform.

Substance Use

Nearly 40% of all people with substance use disorders also have another co-occurring mental disorder[38]; in high expenditure Medicaid enrollees, the number jumps to 71%.[39] Although the randomized control trial (RCT) research evidence on Collaborative Care's ability to effectively treat substance use disorders is less extensive (see Appendix E) than RCT research on mental health, people who have comorbid mental health and substance use problems can benefit from Collaborative Care.

Many mature Collaborative Care programs, such as the Mental Health Integration Program (MHIP) in Washington State, improve the health outcomes of patients who have both mental health and comorbid substance use problems. Alcohol screening and brief interventions, especially repeated brief interventions at multiple visits, are effective for decreasing alcohol use in patients with risky drinking and can be easily incorporated into Collaborative Care programs.[40] In addition, Collaborative Care programs can engage patients in care for alcohol use disorders when they are not ready for specialty treatment.[41] Patients with more complex or severe substance use problems who do not respond to initial treatment in primary care (similar to more complex mental disorders) will still likely need specialty substance abuse disorders (SUD) programs. However, an effective Collaborative Care program can benefit patients with more severe SUDs through detection in primary care, effective referral to specialty care and ongoing coordination with the patient's primary care provider.

Real World Examples

Hundreds of real world, large-scale implementations of Collaborative Care have been successfully put into place over the past ten years, proving that Collaborative Care can improve mental health care outside of a randomized controlled research trial. Ongoing implementation efforts show that Collaborative Care works in a variety of provider and payer settings. Payment and fidelity issues have been successfully addressed in these different settings, many of which have been in place for over a decade. **The evidence showing Collaborative Care works in routine care should inspire all primary care practices to initiate its implementation.**

One of the largest Collaborative Care implementation initiatives to date is COMPASS (Care of Mental, Physical and Substance Use Syndromes), an initiative that involved over 4,000 Medicare and Medicaid patients in seven states. COMPASS is a Collaborative Care model designed to treat patients in primary care suffering from depression as well as diabetes and/or cardiovascular disease. As reported by the Institute for Clinical Systems Improvement, results through December 31, 2014 show that the COMPASS model improves the outcomes of patients with uncontrolled depression and diabetes and/or heart disease. The aggregated results from the 18 regional medical groups participating show the model is exceeding goals set for depression and heart disease improvement and close to the goal set for diabetes improvement.[42] COMPASS was funded by the Centers for Medicare & Medicaid Services (CMS)/Center for Medicare & Medicaid Innovation (CMMI) grant to test Collaborative Care on a large scale.

For more information on COMPASS and real world examples, see Appendix F.

Overall Recommendations

In 1948, the World Health Organization defined health as "a state of complete physical, mental and social well-being and not simply the absence of disease." More than 75 years later, our medical system continues to treat the mind and body separately, without regard for the overall needs of the patient. Although some implementation programs have had tremendous success in bringing effective integrated care to the populations they serve, in most parts of the country, substantial barriers persist. The absence of integrated behavioral and medical healthcare poses a serious health risk to millions of patients and needs to be remedied.

The Kennedy Forum strongly endorses the following policies:

1. **Wide Implementation of the Collaborative Care Model**. Primary care clinics should implement the Collaborative Care model to treat patients with common mental health disorders due to its proven effectiveness in improving clinical outcomes, increasing patient access and satisfaction and lowering overall health care costs.

2. **Promotion of Evidence-Based Treatments for Patients with both Mental Health and Substance Use Disorders.** Primary care clinics that treat patients with comorbid mental health and substance use problems should incorporate evidence-based brief interventions, such as "Screening, Brief Intervention, and Referral to Treatment"(SBIRT) (see Appendix E), into the Collaborative Care model to improve the outcomes for patients with addictions. Care management programs that create treatment plans that incorporate and factor in a patient's comorbidities will have the most success.
3. **Integration with Primary Care is High Priority Even for Severe Behavioral Health Cases**. Specialty mental health providers who treat patients with severe and persistent medical illness should integrate and/or coordinate with the general medical system to improve the treatment of the medical conditions of these patients. Those models that show a positive evidence-base should be expanded.
4. **Integration of Ongoing Coordination of Care is Paramount.** All parts of the health care system should provide effective coordination and transitions of care for the patients they serve who have mental health and substance use problems. For example, someone who is discharged from an emergency room or a psychiatric hospital needs effective follow-up, and programs should assure that referrals to effective behavioral care are successfully completed.

The main barriers to achieving the above recommendations are: 1) an absence of a payment structure that supports evidence-based integrated care practices for treating mental health and substance use disorders in primary care; 2) a lack of a large enough mental health workforce skilled in supporting primary care providers; and 3) a lack of support by some primary care practices to implement Collaborative Care.

Widespread adoption of our recommendations will require engagement at all levels of the health care system; opportunities abound for diverse stakeholders to advance, promote and support this evidence-based model.

The Kennedy Forum offers several key additional recommendations as detailed below.

Payers and Purchasers

Under traditional fee-for-service payment models, key components of effective integrated care approaches like Collaborative Care are generally not reimbursable. Payers, purchasers and regulators need to:

- **Improve Reimbursement Methodologies.** Remove payment obstacles to and improve reimbursement for Collaborative Care in primary care. Reimbursements should focus on the key elements of Collaborative Care including care management services, use of patient-

reported outcome measures/symptom rating scales to facilitate treatment-to-target and regular caseload review and consultation by a designated psychiatric consultant (typically done by phone or tele-video connection). This can be done by several reimbursement mechanisms, including monthly case rates, bundled payments or by a fee-for-service, to pay for such services as care management and psychiatric case review/consultation. Similarly, other forms of reimbursement methodologies can be deployed such as capitation, episode of care payments and pay for performance initiatives to support effective integrated care.

- **Promote Implementation through Incentives**. Partner with practices to implement Collaborative Care and incentivize the key participants to promote its core components, such as covering start-up costs for implementing Collaborative Care programs.
- **Implement Quality Benchmarking**. Use quality improvement methods to promote transparency and accountability among provider practices and payers, along with reporting on clinical and cost outcomes.
- **Create Patient Registries.** Track program-level health and cost outcomes by supporting practices to use a registry, and push for registries that are interoperable with electronic health records (EHRs).
- **Develop Accreditation Standards**. Draft and establish meaningful standards for integrated care. For example, the National Committee for Quality Assurance (NCQA) has started to incorporate integrated care requirements as part of their Patient Centered Medical Home accreditation and has proposed depression symptom monitoring and outcomes as health plan performance measures for the 2016 Healthcare Effectiveness Data and Information Set (HEDIS). These types of efforts should be strengthened; The Kennedy Forum is recommending that all payers use standardized symptom rating scales in their Accountable Care Organizations and Primary Care Medical Homes.

Providers and Provider Organizations

Collaborative Care has many benefits to medical providers, including better patient outcomes, increased patient satisfaction and lower overall health care costs. Providers and provider organizations need to:

- **Increase Awareness**. Understand the prevalence of mental health disorders of patients in their care, the local implications for health outcomes and health care costs and the value of population-level care.
- **Promote Enhanced Reimbursement Methodologies**. Negotiate financial support for implementing evidence-based approaches to integration, such as Collaborative Care, tailored to their unique practice settings and patient populations.

- **Report on Outcomes**. Track and benchmark clinical outcomes at both the patient and provider levels to make sure stated goals are being met by comparing their data to the scientific literature and/or similar organizations for benchmarks.
- **Implement a Synergistic Environment**. Learn the skills necessary to become an effective member of a Collaborative Care team and seek out opportunities to do so.

Future and Current Workforce Training Programs

Integrated care awareness and skills should be part of the health professional training program.

- **Promote Early Behavioral Health Training.** Health professional schools should introduce the importance of behavioral health care early on in training.
- **Use a Team-Based Approach.** Academic medical centers should provide opportunities for interdisciplinary and team-based training.
- **Implement an Inter-disciplinary Approach.** Psychiatry residency programs should develop strong training programs in evidence-based integrated care as was recently recommended by the American Psychiatric Association.
- **Leverage and Share Existing Best Practices**. Existing workforce training should focus on the knowledge, skills and attitudes necessary to help mental health specialists support primary care providers, thereby leveraging their expertise to reach greater numbers of individuals with mental health and substance use disorders.
- **Develop Interdisciplinary Certification Standards.** Certification programs such as the Association of American Medical Colleges (AAMC) and Automated Classification of Medical Entities (ACME) should require interdisciplinary training in Collaborative Care for mental health specialists and primary care providers.

Patients and Patient Advocacy Groups

Although Collaborative Care has been proven to result in greater access, higher patient satisfaction and better patient outcomes, few patients know about the model as an option to help them overcome their mental health and substance use disorders.

- **Promote Consumer Education**. Behavioral health and consumer advocates should educate consumers about Collaborative Care and coach them to ask for this type of care.
- **Communicate the Value.** Patients and their family members should understand the value of and ask for Collaborative Care and expect remission from their symptoms.

Appendix

Appendix A: Approaches to Integrating Behavioral Health in Primary Care that Lack Consistent Evidence of Effectiveness and Cost-effectiveness

For more than 30 years, researchers and clinicians have looked at ways to improve the detection and treatment of mental health and substance use disorders in primary care settings. Efforts initially focused on screening for common mental disorders, co-location of mental health providers in primary care clinics, provider education and training, facilitated referral to mental health specialty care and disease management. These approaches, if applied in isolation from other delivery strategies, have not been found to improve patient outcomes or reduce costs when compared to usual care.

Screening

Although some studies have shown that screening through the use of brief structured rating scales that measure the severity of psychiatric symptoms is helpful in detecting mental health disorders in primary care, **the research clearly indicates that screening alone is not sufficient to improve outcomes for patients.** A Cochrane review found that patients with depression randomized to depression screening did not have better outcomes than patients randomized to usual care.[43] While screening alone lacks research evidence that it improves outcomes, it is an important first step in the quality improvement process. Moreover, even if practices do not offer effective behavioral health services on site, screening may lead to referrals to effective off site specialty behavioral health programs.

For further discussion of measurement based care, please refer to The Kennedy Forum's issue brief "Fixing Mental Health Care in America: A National Call for Measurement-Based Care in the Practice of Behavioral Health and Primary Care."

Co-Location

Another approach to improve care for patients with behavioral health problems is to simply co-locate mental health specialists within primary care clinics. The research literature on co-location is limited; several studies demonstrate that co-located behavioral health specialists can deliver effective interventions in the primary care setting[44,45,46], but a large RCT comparing

co-located care to referral found no differences in outcomes and somewhat worse outcomes for patients with more severe symptoms.[47,48]

Co-location does increase the opportunity for the behavioral health specialist and primary care provider to consult on patients, either informally or formally.[49] Co-location, however, does not ensure that providers collaborate effectively in the treatment of shared patients. Overall, simply co-locating a mental health provider into primary care without effective collaboration between mental health and primary care providers and without the use of evidence-based treatments has not been shown to improve health or mental health outcomes at a population level. **Medical systems that are looking to improve the care of people with mental health and substance use disorders for patients with and without chronic medical conditions should be wary of spending time and money to simply co-locate mental health specialists within primary care unless they are also going to implement all of the five key elements of Collaborative Care.**

Provider Education and Training

Because primary care practices are the de facto location of care for common mental health disorders, numerous education and training programs have been developed to improve primary care providers' ability to treat psychiatric disorders. Approaches range from structured training programs that teach providers how to detect and treat psychiatric disorders to training in the use of evidence-based treatment guidelines to be followed when treating psychiatric disorders. However, even the most comprehensive of these programs resulted in only minimal or short-lived changes in providers' practices and patient outcomes.[50,51,52] **The research is clear that physician education and treatment guidelines alone do not improve mental health outcomes in primary care.**

Facilitated Referral

Patients who are referred to specialty mental health providers, similar to being referred to a cardiologist or a pulmonologist, often fail to follow through with their referral, especially those in ethnic minority groups.[53,54,55] Those who do follow through often don't stick with care long enough to get effective treatment.[56,57] To address this problem, researchers developed the enhanced, or facilitated, referral model, where supports such as free transportation and follow-up reminders were used to increase the likelihood of follow-through. Research on facilitated referral suggests that enhanced referral is less effective than co-locating mental health specialists in primary care settings with regard to promoting the use of specialty mental health services.[58,59]

Even if facilitated referral was effective, there are not enough specialty mental health providers available to refer all patients in the first place. Primary care providers view specialty mental health providers as being far less available than other specialists.[60,61,62] Referral to specialty mental health services is helpful and necessary for some individuals, and we recommend primary care practices

make every effort to facilitate referrals as this will improve outcomes for those people who do connect with the specialty mental health system and engage in treatment. **However, enhanced referral assistance is unlikely to improve patient outcomes at the population level.**

Traditional Disease Management Programs

In telephonic disease management programs, nurses from a centralized call center operated by the health plan but working in isolation of the providers who are treating the patient attempt to support treatment provided in primary care. **There have now been several large studies of such disease management programs, and they have generally not been shown to improve disease outcomes or to reduce health care costs when these programs are separated from the treating providers.**[63,64] A critical element missing from the disease management model is that nurses do not communicate directly with the primary care providers and they do not provide evidence-based treatments for depression. Rather, they attempt to educate and activate patients to improve communication with their provider. In effective Collaborative Care programs, care managers who are closely supported by psychiatric consultants work directly with patients and are in close and direct contact with the patients' primary care providers who remain in charge of the patient's overall care.

Appendix B: Behavioral Health Consultant (BHC) Model

A commonly used approach to treating mental health in primary care is the Behavioral Health Consultant (BHC) model, which is solidly grounded in a clinical practice culture. The BHC model embeds a mental health provider in a primary care clinic who addresses a wide range of health, mental health and substance abuse problems. The embedded mental health provider maintains an open access clinic (i.e. no appointments necessary) and the primary care provider initiates a "warm handoff" to the mental health specialist whenever they feel the patient would benefit from a behavioral health intervention. Patients with known behavioral health problems are discussed during team huddles, and the primary care and mental health providers work from a shared treatment plan. A major strength of the BHC model is that primary care providers have immediate support, and distressed patients receive quick treatment.

This emphasis on rapid access also comes with some potential limitations. Patients may be seen infrequently or it may be difficult to provide sufficient follow-up care while at the same time maintaining open access. There is also not an emphasis on outreach when patients do not come back to the clinic or on psychiatric consultation and treatment adjustments if patients are not improving as expected. Although there is substantial practice experience with this model, there is little research evidence that this approach is more effective than typical primary care for patients with serious mental disorders such as depression, anxiety, posttraumatic stress disorder or substance use disorders. More research may be needed on the effectiveness and cost-effectiveness of this approach before this model should be widely implemented.

Appendix C: Care Manager Role

Behavioral health care managers support primary care physicians who maintain the responsibility for the patient's care. They work closely with, and are usually located in, the primary care practice, although telephonic or other electronic contact can also be effective and efficient as long as it is closely coordinated with the patient's treating primary care provider. In fact, one study showed contracting with an off-site telemedicine-based Collaborative Care team yielded better outcomes than implementing practice-based collaborative care with locally available staff.[65]

With appropriate training and supervision, Collaborative Care programs have successfully used personnel with various types of professional backgrounds as care managers, including psychologists, licensed clinical social workers, licensed counselors (i.e. master's level therapists), nurses (i.e. RNs and LPNs) and medical assistants under the appropriate supervision. Care manager responsibilities include:

- Screening for depression and other common mental disorders or for medical conditions in patients with serious mental illnesses.
- Support of the integrated treatment plan.
- Ongoing patient engagement and education.
- Close and proactive follow-up focusing on treatment adherence, treatment effectiveness and treatment side effects.
- Brief counseling using established and evidence-based techniques such as Motivational Interviewing, Behavioral Activation, Problem-Solving Treatment in Primary Care, Cognitive Behavioral Therapy or Interpersonal Therapy.
- Regular (usually weekly) review of all cases who are not improving as expected with a psychiatric consultant.
- Facilitation of effective communication between the PCP and the psychiatric consultant.
- Facilitation of referrals to and coordination with outside mental health specialty care or medical specialty care, substance abuse services and social services.
- Creation of a relapse prevention plan once a patient has shown improvement.

View a detailed Care Manager Job Description at the AIMS Center website.

Appendix D: Psychiatric Consultant Role

Psychiatric consultants provide mental health specialty support for the primary care treatment team, particularly regarding patients who are not improving as expected. Because clinical recommendations often include the use of psychotropic medications, psychiatrists and psychiatric nurse practitioners are the two types of clinicians eligible in most states to provide these services. Consultation responsibilities include:

- Regular (usually weekly) review of a caseload of patients, with a focus on new patients or those who are not improving as expected Recommendations, usually summarized in brief, focused written or electronic notes are sent to the care manager supporting the PCP or directly to the PCP.
- Consultative support for care managers and primary care providers who are encountering patients with diagnostic or therapeutic challenges or challenging behaviors. This is accomplished through regular caseload reviews and through availability for consultation to the care manager and/or the PCP during the week.

The level of effort for consultants is typically three hours per week for each care manager's primary care caseload (typically 50-100 patients). This approach effectively leverages the skills of a psychiatric consultant, allowing them to serve a much larger population of patients than could be seen in traditional, office-based practice. However, such psychiatric consultation which may not involve face-to-face patient consultation is currently not reimbursable under most fee-for-service payment schemes.

View a detailed Psychiatric Consultant Job Description at the AIMS Center website.

Appendix E: Research Evidence for Collaborative Care and Substance Use Disorders

Like mental health services, substance use treatments have historically been separated from other kinds of medical care, and integration with primary care is increasingly seen as desirable. To date, the RCT-based research evidence on Collaborative Care effectively treating substance use disorders when it is the primary diagnosis is limited and somewhat mixed. One study showed providers can treat alcohol use disorders effectively within primary care, leading to greater rates of engagement in treatment and greater reductions in heavy drinking.[66] Similarly, a randomized study of traumatic injury survivors admitted to a hospital found Collaborative Care resulted in decreased alcohol consumption.[67] On the other hand, among patients undergoing detoxification, Collaborative Care was not shown to be significantly more effective than usual primary care for improving clinical outcomes or treatment utilization.[68,69]

The majority of applicable evidence on substance use disorders outcomes in primary care comes from interventions under the broader umbrella of integrated care, and meet some—but not all—of the principles of Collaborative Care. Many clinics have trained staff to provide Screening, Brief Intervention and Referral to Treatment (SBIRT), an evidence-based practice used to identify, reduce and prevent problematic use, abuse and dependence on alcohol and illicit drugs. SBIRT can improve linkage to treatment[70], but the research evidence is mixed about the effectiveness of these programs in typical primary care settings, and the alcohol and drug outcomes differ substantially. Screening and Brief Intervention has been proven for alcohol use[71,72], but not for drug use[73,74], and the Referral to Treatment component has yet to be proven for either. Ongoing studies are testing enhanced versions of SBIRT that add more substantial treatment components such as medication assisted management in primary care. Given these results and evidence from mature Collaborative Care programs, it is likely that improvements in substance use disorder outcomes will be enhanced by adding evidence-based practices for substance use disorders, such as SBIRT, into Collaborative Care programs.

Appendix F: Real World Examples

Below are several real world examples that highlight the benefits of the Collaborative Care model in diverse practice settings.

COMPASS (Care of Mental, Physical and Substance Use Syndromes)

COMPASS is a Collaborative Care model designed to treat patients in primary care suffering from depression as well as diabetes and/or cardiovascular disease along with possibly risky substance use. The initiative reached over 4,000 Medicare and Medicaid patients in seven states, one of the largest Collaborative Care implementations to date. Results through December 31, 2014 show that the team-based COMPASS model improves the outcomes of patients with uncontrolled depression and uncontrolled diabetes and/or heart disease. The aggregated results from the 18 regional medical groups participating show the model is exceeding goals set for depression, heart disease improvement and diabetes improvement.

- **Scale**: 18 regional medical groups in seven states; 4,000 patients
- **Ages/Population**: Adults
- **Conditions Treated**: Depression plus poorly controlled diabetes and/or cardiovascular disease along with optional substance abuse
- **Insurance Status**: Enrolled in Medicare, Medicaid (71%), commercial insurance (27%) and self-pay (2%)
- **Payment Model**: CMMI Innovation Award
- **Funder**: Centers for Medicare & Medicaid Services (CMS)/Center for Medicare & Medicaid Innovation (CMMI). Grant number 1C1CMS331048-01-00

Department of Veterans Affairs

The Primary Care Mental Health Integration (PC-MHI) initiative in the Department of Veterans Affairs mandates that all primary care clinics offer both the Collaborative Care model and the Behavioral Health Consultant model. Care managers (usually nurses) use the Behavioral Health Lab software to track patient outcomes over time, often by telephone. Psychiatric supervisors consult with the care manager and provide treatment recommendations to the primary care provider via progress notes in the electronic health record. In addition, patients and providers are supported by on-site co-located Behavioral Health Consultants (psychologists and psychiatrists) who have open access clinics and receive warm "hand offs" from primary care providers and provide problem-focused assessments, pharmacotherapy and brief evidence-based psychotherapies.

All patients are screened annually for depression, PTSD and alcohol misuse.

- **Scale**: In 2014, VHA operated 358 Medical Centers and Community Based Outpatient Clinics serving >5000 and 92% of these facilities offered PC-MHI services. Specifically, 66% offered blended Collaborative Care and Behavioral Health Consultants, 24% offered Behavioral Health Consultants only and 2% offered Collaborative Care. Between October 2007 and April 2015, PC-MHI had served 1,161,645 unique veterans during 4,816,159 encounters. Thus, VHA has clearly demonstrated that collaborative care can be implemented at a large scale
- **Ages/Population**: U.S. Veterans
- **Conditions Treated**: Depression, anxiety, PTSD and substance use
- **Insurance Status**: Fixed budget
- **Payment Model**: Salaried clinicians
- **Funder**: Federal government

Depression Improvement Across Minnesota, Offering a New Direction (DIAMOND), Minnesota

DIAMOND united a physician, care manager and consulting psychiatrist to provide a team-based model for caring for patients with depression in the primary care clinic. The initiative was coordinated by the Institute for Clinical Systems Improvement (ICSI), which documented process and outcome measures as it evaluated the success of DIAMOND. The project used a patient registry (Care Management Tracking System) that tracked and measured patient goals and clinical outcomes and facilitated treatment adjustment if a patient did not improving as expected.

- **Scale**: Six commercial health insurance plans, 25 medical groups and over 80 primary care clinics in Minnesota; more than 12,000 patients were treated in the program through April 2013
- **Ages/Population**: Adult
- **Conditions Treated**: Depression
- **Insurance Status**: Commercial
- **Payment Model**: ICSI brought together major stakeholders in 2006 and encouraged all payers to provide a monthly bundled payment (i.e. case rate) for Collaborative Care. Only clinics that successfully completed training by ICSI and demonstrated ability to follow the new care model were eligible for payment. A single billing code for DIAMOND services was established for use in certified DIAMOND clinics. The code covered care manager services, plus weekly consultation and case review by the psychiatrist

- Funder: The individual medical groups carried the cost of the program. Neither ICSI nor NIMH funded the initiative. ICSI facilitated the training and the process; NIMH funded the DIAMOND study, which was separate from the initiative

Intermountain Healthcare, Utah and Idaho

Intermountain Healthcare is an integrated delivery system that provides more than half of all health care delivered in the region. Intermountain's hospitals range from critical-access facilities in rural areas to large, urban teaching hospitals. Although Intermountain has an employed physician group and a health insurance plan, the majority of its care is performed by independent, community-based physicians.

Over the past 15 years, Intermountain Healthcare has developed a team-based approach to care for patients with physical and mental health conditions. The team includes the PCPs and their staff. They, in turn, are integrated with mental health professionals, community resource experts, care managers, and the patient and his or her family. The integration model goes far beyond co-location in its team-based approach; it is operationalized at the clinic, thereby improving both physician and staff satisfaction. Patients treated in mental health integration clinics also show improved satisfaction, lower costs and better quality outcomes.

- **Scale**: 23 hospitals, 180 primary care and specialty clinics
- **Ages/Population**: All populations, from toddlers to seniors
- **Conditions Treated**: Comprehensive physical, mental health and substance abuse services
- **Payment Model:** Financially sustainable in routinized clinics without subsidies
- **Funder**: Government and commercial payers, self-pay, charity

Kaiser Permanente Southern California Depression Program, California

Kaiser Permanente Southern California (KPSC) was one of the original providers in the landmark "Improving Mood – Promoting Access to Collaborative Treatment" (IMPACT) study that showed the implementation of Collaborative Care resulted in better patient outcomes, higher patient satisfaction and lower health care costs than usual care. After the trial, KPSC decided to implement its Collaborative Care depression program at 14 regional medical centers focusing on cardiovascular disease and depression, with depression being the primary target. Some centers expanded the depression team to include a medical assistant or nurse for telephone contacts and panel management tracking functions. Many also added a depression class to the model for its patients. Psychiatric supervision can be done by telephone or in person.

- **Scale**: 14 regional medical centers, over 3 million members
- **Ages/Population**: Adults of all ages

- **Conditions Treated:** Depression, comorbid medical conditions especially cardiovascular disease and diabetes
- **Insurance Status**: Managed care system – private/commercial patients
- **Funder**: Kaiser awarded funds for this project to each medical center

Mental Health Integration Program (MHIP), Washington

The Washington State Mental Health Integration Program (MHIP), in operation since 2008, was created with sponsorship from the Community Health Plan of Washington and Public Health -- Seattle & King County. This program offers Collaborative Care to a network of Federally Qualified Health Centers (FQHCs) and Community Behavioral Health Centers serving safety-net clients with medical and behavioral health needs. Patients are offered on-site, integrated primary care behavioral health services for mild/moderate conditions, while patients needing more intensive mental health services are referred to Community Based Mental Health Centers. Regardless of care location, the model emphasizes person-centered, coordinated care. This program uses a unique payment system that is tied to quality improvement metrics; each clinic has to meet identified criteria for quality processes of care in order to earn a particular percentage of the total payment for the program. MHIP uses a patient registry (CMTS) to track and measure patient goals and clinical outcomes and facilitate treatment adjustment if a patient is not improving as expected.

- **Scale**: Over 100 FQHCs located throughout the state; more than 45,000 individuals have been treated since the program's inception in 2008
- **Ages/Population:** Children, adults, elderly, ethnic minority, low-income
- **Conditions Treated**: Depression, generalized anxiety disorder, PTSD, ADHD, serious mental illness, substance use, comorbid medical conditions
- **Insurance Status**: Enrolled in Managed Medicaid; in King County, the program serves additional safety-net populations including uninsured clients (funded through a county tax levy)
- **Payment Model**: Service providers receive care coordinator stipend payments for care management services in addition to FFS payment for PCP services. Psychiatric consultants are paid through a contract that purchases blocks of time dedicated to systematic case reviews and consultation to PCPs. 25% of the payment to clinics is tied to achieving a number of process and clinical outcome measures. Performance is assessed on a number of quality indicators, including timely follow-up with patients; demonstration of improved patient outcomes; or systematic consultation and treatment adjustment for patients who aren't improving. Since this pay-for-performance component was introduced in 2008, the effectiveness of the program has substantially improved; for example, the median time-to-improvement in depression was cut more than in half after implementation of the pay-for-performance incentive payment.

These findings, based on a study of almost 8,000 depressed adults served in 29 community health clinics participating in MHIP, were recently published in the American Journal of Public Health in 2012. Click here for the study.

- **Funder**: Washington State Health Care Authority, Community Health Plan of Washington (CHPW), and Public Health - Seattle & King County

Montefiore Medical Center, New York

Montefiore Medical Center in New York integrates behavioral and primary care for individuals receiving services from several primary care sites using the Collaborative Care model framework. Individuals seeking care at selected sites are screened for behavioral health conditions. Those that meet program and severity criteria are treated using Collaborative Care, comprised of a primary care provider, psychiatrist, social worker/psychologist and care manager. This team, in partnership with the PCP, delivers treatment consisting of brief psychotherapy and medication management (when appropriate) using care management, measurement-based care, stepped care and self-management support. Additionally, grant funding supports referrals to specialty, off-site behavioral health services when necessary. In addition to improving behavioral health of patients and the quality of their care, the project aims to promote ongoing program sustainability through a case-based payment model that pays providers to deliver a range of services and supports the requirements of the collaborative care model (e.g., face-to-face and non-face-to-face encounters). To implement the case-based payment model, Montefiore will work in collaboration with three health plans (Affinity, HealthFirst, and Emblem).

- **Scale**: 7 sites, 1,500 patients
- **Ages**: All included (children and adolescents, adults, geriatrics)
- **Conditions Treated**: Depression, generalized anxiety disorder, panic disorder, social anxiety, PTSD, ADHD (in children and adolescents only) and alcohol use disorder
- **Insurance Status**: Enrolled in Medicare, Medicaid or commercial products from Emblem, HealthFirst and Affinity
- **Payment Model**: Initial case payment covers the first three months and then sites receive a lower quarterly maintenance payment ongoing if metrics, including those representing ongoing patient engagement, are demonstrated
- **Funder**: Centers for Medicare & Medicaid Services (CMS) through the Health Care Innovation Award

RESPECT-Mil: Re-Engineering Systems of Primary Care Treatment in the Military

RESPECT-Mil is an evidence-based systems approach to providing PTSD and depression care to soldiers in a primary care setting. The RESPECT-Mil treatment model involves primary care providers, assisted by RESPECT-Mil Care Facilitators (RCFs) trained to screen their patients for depression and PTSD and to communicate with them about behavioral health issues. Advantages of this care model include identifying and treating problems early, delivering effective, easy-to-access care in the primary care setting with reduced stigma and promoting collaboration between primary care and behavioral health in military treatment facilities. This model also provides improved continuity of care for problems that require long-term, sustained interventions, and as a result, soldiers in the RESPECT-Mil program are less likely to "fall through the cracks" of an often complex health services delivery system. RESPECT-Mil uses the web-based care management tool FIRST-STEPS to track treatment effects in real time. A five-year randomized, effectiveness trial of a second-generation approach to RESPECT-Mil (STEPS-UP: Stepped Enhancement of PTSD Services Using Primary Care) added several additional components, including centralized implementation assistance, stepped psychotherapies making use of Internet and telephone, care-manager training in intensive patient-engagement strategies for greater continuity and routine use of automated registries to identify patients in need of treatment changes.

- **Scale**: 97 primary care clinics worldwide have improved care in more than 3 million patient visits and helped tens of thousands of military personnel with PTSD and depression, including thousands who screened positive for suicidality
- **Ages/Population**: U.S. soldiers
- **Conditions Treated**: Depression, PTSD, substance use, mania
- **Insurance Status**: Fixed budget
- **Payment Model**: Salaried clinicians
- **Funder**: Department of the Army

Missouri Health Net, Missouri

Missouri has implemented statewide Primary Care Health Homes (PCHHs), which integrate behavioral health care out of primary care practices, and statewide Community Mental Health Center (CMHC) Health Homes, which integrate general medical care out of a CMHC. Both types of health homes use primary care nurse managers who monitor and improve medication adherence across the same classes of both general medical and psychiatric medications and are responsible for follow-up and medication reconciliation within 72 hours of discharge from hospitalization.

Although not a Collaborative Care implementation, this model is noteworthy for its many elements of Collaborative Care and for using financial incentives to drive collaboration and integration, especially for the SMI population. Since 2008, Missouri has provided CMHC/Federally Qualified Health Center (FQHC) immigration funding for CMHCs/FQHC pairs that contract to provide services on site within each other's facilities and record on each other's EHRs. During that time, the number of providers that are both CMHCs and FQHCs has increased from one to eight, which is approximately 30 percent of the CMHCs and FQHCs. The program has found co-location is more likely to be effective in integrating care if the primary care providers' and behavioral health providers' offices/exam rooms are widely interspersed.

- **Scale**: 18 FQHCs, 6 hospital, 28 CMHCs; 43,000 people
- **Ages/Population**: All ages
- **Conditions Treated:** Depression, generalized anxiety disorder, substance use, co-morbid medical conditions
- **Insurance Status**: Medicaid
- **Payment Model**: Planning and start-up grants, Bureau of Primary Health Care grants, contract CMHC clinicians/services to primary care providers, health and behavior assessment/intervention – CPT codes 96150-96155, enhanced primary care efficiency, SBIRT implementation grants, SBIRT billing codes, Section 2703 Health Home for Persons with Chronic Conditions PMPM payments
- **Funder**: State of Missouri

References

1 Vos, T., Flaxman, A. D., Naghavi, M., Lozano, R., Michaud, C., Ezzati, M., et al. (2012). Years lived with disability (YLDs) for 1160 sequelae of 289 diseases and injuries 1990-2010: A systematic analysis for the global burden of disease study 2010. Lancet (London, England), 380(9859), 2163-2196.

2 Melek, S., Norris, D., & Paulus, J. Economic Impact of Integrated Medical-Behavioral Healthcare: Implications for Psychiatry. Edited by Milliman I. Denver, CO: Prepared for American Psychiatric Association. April, 2014.

3 Wang, P. S., Lane, M., Olfson, M., Pincus, H. A., Wells, K. B., & Kessler, R. C. (2005). Twelve-month use of mental health services in the United States: Results from the national comorbidity survey replication. Archivs of General Psychiatry, 62(6), 629-640.

4 Wang, P. S., Lane, M., Olfson, M., Pincus, H. A., Wells, K. B., & Kessler, R. C. (2005). Twelve-month use of mental health services in the United States: Results from the national comorbidity survey replication. Archives of General Psychiatry, 62(6), 629-640.

5 Thomas, K. C., Ellis, A. R., Konrad, T. R., Holzer, C. E., & Morrissey, J. P. (2009). County-level estimates of mental health professional shortage in the United States. Psychiatric Services (Washington, D.C.), 60(10), 1323-1328.

6 Malowney, M., Keltz, S., Fischer, D., & Boyd, J. W. (2015). Availability of outpatient care from psychiatrists: A simulated-patient study in three U.S. cities. Psychiatric Services (Washington, D.C.), 66(1), 94-96.

7 Regier, D. A., Narrow, W. E., Rae, D. S., Manderscheid, R. W., Locke, B. Z., & Goodwin, F. K. (1993). The de facto US mental and addictive disorders service system. epidemiologic catchment area prospective 1-year prevalence rates of disorders and services. Archives of General Psychiatry, 50(2), 85-94.

8 Wang, P. S., Demler, O., Olfson, M., Pincus, H. A., Wells, K. B., & Kessler, R. C. (2006). Changing profiles of service sectors used for mental health care in the United States. The American Journal of Psychiatry, 163(7), 1187-1198.

9 Blue Shield of California Foundation. Exploring low-income Californians' needs and preference for behavioral health care. March, 2015.

10 Callahan, C. M., Hendrie, H. C., Dittus, R. S., Brater, D. C., Hui, S. L., & Tierney, W. M. (1994). Improving treatment of late life depression in primary care: A randomized clinical trial. Journal of the American Geriatrics Society, 42(8), 839-846.

11 Cunningham, P. J. (2009). Beyond parity: Primary care physicians' perspectives on access to mental health care. Health Affairs (Project Hope), 28(3), w490-501.

12 CASAColumbia. The National Center on Substance Abuse at Columbia University. Missed opportunity: national survey of primary care physicians and patients on substance abuse. National Center on Substance Abuse at Columbia University; New York: 2000.

13 Wang, P. S., Lane, M., Olfson, M., Pincus, H. A., Wells, K. B., & Kessler, R. C. (2005). Twelve-month use of mental health services in the United States: Results from the national comorbidity survey replication. Archives of General Psychiatry, 62(6), 629-640.

14 Ludman, E. J., Peterson, D., Katon, W. J., Lin, E. H., Von Korff, M., Ciechanowski, P., et al. (2013). Improving confidence for self care in patients with depression and chronic illnesses. Behavioral Medicine (Washington, D.C.), 39(1), 1-6.

15 Moussavi, S., Chatterji, S., Verdes, E., Tandon, A., Patel, V., & Ustun, B. (2007). Depression, chronic diseases, and decrements in health: Results from the world health surveys. Lancet (London, England), 370(9590), 851-858.

16 Park, M., Katon, W. J., & Wolf, F. M. (2013). Depression and risk of mortality in individuals with diabetes: A meta-analysis and systematic review. General Hospital Psychiatry, 35(3), 217-225.

17 Centers for Disease Control and Prevention, National Center for Injury Prevention and Control. Web-based Injury Statistics Query and Reporting System (WISQARS). (2010). Accessed August 31, 2015 from http://www.cdc.gov/injury/wisqars/

18 DE Hert, M., Correll, C. U., Bobes, J., Cetkovich-Bakmas, M., Cohen, D., Asai, I., et al. (2011). Physical illness in patients with severe mental disorders. I. prevalence, impact of medications and disparities in health care. World Psychiatry: Official Journal of the World Psychiatric Association (WPA), 10(1), 52-77.

19 Vreeland, B. Treatment decisions in major mental illness: weighing the outcomes. The Journal of Clinical Psychiatry, 68 Suppl 12, 5-11.

20 Institute of Medicine. Hospital-based Emergency Care: At the Breaking Point. 2007.

21 Lindsey ,M., Patterson, W., Ray, K., & Roohan, P. Statistical brief #3 potentially preventable hospital readmissions among Medicaid recipients with mental health and/or substance abuse health conditions compared with all others: New York State, 2007. New York State Department of Health Division of Quality and Evaluation Office of Health Insurance Programs, Albany NY, 2007, pp. 1-10.

22 Simon, G. E., Barber, C., Birnbaum, H. G., Frank, R. G., Greenberg, P. E., Rose, R. M., et al. (2001). Depression and work productivity: The comparative costs of treatment versus nontreatment. Journal of Occupational and Environmental Medicine / American College of Occupational and Environmental Medicine, 43(1), 2-9.

23 Melek, S., Norris, D., & Paulus, J. Economic Impact of Integrated Medical-Behavioral Healthcare: Implications for Psychiatry. Edited by Milliman I. Denver, CO: Prepared for American Psychiatric Association. April, 2014.

24 Melek, S. Bending the Medicaid healthcare cost curve through financially sustainable medical-behavioral integration. Milliman Research Report. July, 2012.

25 Melek, S., Norris, D., & Paulus, J. Economic Impact of Integrated Medical-Behavioral Healthcare: Implications for Psychiatry. Edited by Milliman I. Denver, CO: Prepared for American Psychiatric Association. April, 2014.

26 GAO-15-460. Medicaid: A Small Share of Enrollees Consistently Accounted for a Large Share of Expenditures. Report to Congressional Requesters. May, 2015.

27 Wagner, E. H., Austin, B. T., Davis, C., Hindmarsh, M., Schaefer, J., & Bonomi, A. (2001). Improving chronic illness care: Translating evidence into action. Health Affairs (Project Hope), 20(6), 64-78.

28 Fortney, J. C., Pyne, J. M., Mouden, S. B., Mittal, D., Hudson, T. J., Schroeder, G. W., et al. (2013). Practice-based versus telemedicine-based collaborative care for depression in rural federally qualified health centers: A pragmatic randomized comparative effectiveness trial. The American Journal of Psychiatry, 170(4), 414-425.

29 Hudson, T. J., Fortney, J. C., Pyne, J. M., Lu, L., & Mittal, D. (2015). Reduction of patient-reported antidepressant side effects, by type of collaborative care. Psychiatric Services (Washington, D.C.), 66(3), 272-278.

30 Archer, J., Bower, P., Gilbody, S., Lovell, K., Richards, D., Gask, L., et al. (2012). Collaborative care for depression and anxiety problems. The Cochrane Database of Systematic Reviews, 10, CD006525.

31 Arean, P. A., Ayalon, L., Hunkeler, E., Lin, E. H., Tang, L., Harpole, L., et al. (2005). Improving depression care for older, minority patients in primary care. Medical Care, 43(4), 381-390.

32 Davis, T. D., Deen, T., Bryant-Bedell, K., Tate, V., & Fortney, J. (2011). Does minority racial-ethnic status moderate outcomes of collaborative care for depression? Psychiatric Services (Washington, D.C.), 62(11), 1282-1288.

33 Miranda, J., Duan, N., Sherbourne, C., Schoenbaum, M., Lagomasino, I., Jackson-Triche, M., et al. (2003). Improving care for minorities: Can quality improvement interventions improve care and outcomes for depressed minorities? Results of a randomized, controlled trial. Health Services Research, 38(2), 613-630.

34 Miranda, J., Schoenbaum, M., Sherbourne, C., Duan, N., & Wells, K. (2004). Effects of primary care depression treatment on minority patients' clinical status and employment. Archives of General Psychiatry, 61(8), 827-834.

35 Unutzer, J., Katon, W., Callahan, C. M., Williams, J. W.,Jr, Hunkeler, E., Harpole, L., et al. (2002). Collaborative care management of late-life depression in the primary care setting: A randomized controlled trial. Jama, 288(22), 2836-2845.

36 Unutzer, J., Harbin, H., & Schoenbaum, M. The Collaborative Care Model: An Approach for Integrating Physical and Mental Health Care in Medicaid Health Homes. Baltimore, Centers for Medicare and Medicaid Services, 2013.

37 Unutzer, J., Katon, W. J., Fan, M. Y., Schoenbaum, M. C., Lin, E. H., Della Penna, R. D., et al. (2008). Long-term cost effects of collaborative care for late-life depression. The American Journal of Managed Care, 14(2), 95-100.

38 Substance Abuse and Mental Health Services Administration. Substance Use and Mental Health Estimates from the 2013 National Survey on Drug Use and Health: Overview of Findings. 2014.

39 GAO-15-460. Medicaid: A Small Share of Enrollees Consistently Accounted for a Large Share of Expenditures. Report to Congressional Requesters. May, 2015.

40 Jonas, D. E., Garbutt, J. C., Amick, H. R., Brown, J. M., Brownley, K. A., Council, C. L., et al. (2012). Behavioral counseling after screening for alcohol misuse in primary care: A systematic review and meta-analysis for the U.S. preventive services task force. Annals of Internal Medicine, 157(9), 645-654.

41 Willenbring, M. L., & Olson, D. H. (1999). A randomized trial of integrated outpatient treatment for medically ill alcoholic men. Archives of Internal Medicine, 159(16), 1946-1952.

42 Institute for Clinical Systems Improvement Newsletter. Preliminary Results Shows COMPASS Improves Patient Outcomes. April, 2015.

43 Gilbody, S., Sheldon, T., & House, A. (2008). Screening and case-finding instruments for depression: A meta-analysis. CMAJ: Canadian Medical Association Journal = Journal De l'Association Medicale Canadienne, 178(8), 997-1003.

44 Bower, P., Garralda, E., Kramer, T., Harrington, R., & Sibbald, B. (2001). The treatment of child and adolescent mental health problems in primary care: A systematic review. Family Practice, 18(4), 373-382.

45 Brown, C., & Schulberg, H. C. (1995). The efficacy of psychosocial treatments in primary care. A review of randomized clinical trials. General Hospital Psychiatry, 17(6), 414-424.

46 Skultety, K. M., & Zeiss, A. (2006). The treatment of depression in older adults in the primary care setting: An evidence-based review. Health Psychology : Official Journal of the Division of Health Psychology, American Psychological Association, 25(6), 665-674

47 Bartels, S. J., Coakley, E. H., Zubritsky, C., Ware, J. H., Miles, K. M., Arean, P. A., et al. (2004). Improving access to geriatric mental health services: A randomized trial comparing treatment engagement with integrated versus enhanced referral care for depression, anxiety, and at-risk alcohol use. The American Journal of Psychiatry, 161(8), 1455-1462.

48 Krahn, D. D., Bartels, S. J., Coakley, E., Oslin, D. W., Chen, H., McIntyre, J., et al. (2006). PRISM-E: Comparison of integrated care and enhanced specialty referral models in depression outcomes. Psychiatric Services (Washington, D.C.), 57(7), 946-953.

49 Blount, A. (2003). Integrated primary care: organizing the evidence. Family, Systems, & Health, 21,121-133.

50 Lin, E. H., Simon, G. E., Katzelnick, D. J., & Pearson, S. D. (2001). Does physician education on depression management improve treatment in primary care? Journal of General Internal Medicine, 16(9), 614-619.

51 Tiemens, B. G., Ormel, J., Jenner, J. A., van der Meer, K., Van Os, T. W., van den Brink, R. H., et al. (1999). Training primary-care physicians to recognize, diagnose and manage depression: Does it improve patient outcomes? Psychological Medicine, 29(4), 833-845.

52 Thompson, C., Kinmonth, A. L., Stevens, L., Peveler, R. C., Stevens, A., Ostler, K. J., et al. (2000). Effects of a clinical-practice guideline and practice-based education on detection and outcome of depression in primary care: Hampshire depression project randomised controlled trial. Lancet (London, England), 355(9199), 185-191.

53 Krahn, D. D., Bartels, S. J., Coakley, E., Oslin, D. W., Chen, H., McIntyre, J., et al. (2006). PRISM-E: Comparison of integrated care and enhanced specialty referral models in depression outcomes. Psychiatric Services (Washington, D.C.), 57(7), 946-953.

54 Ayalon, L., Arean, P. A., Linkins, K., Lynch, M., & Estes, C. L. (2007). Integration of mental health services into primary care overcomes ethnic disparities in access to mental health services between black and white elderly. The American Journal of Geriatric Psychiatry: Official Journal of the American Association for Geriatric Psychiatry, 15(10), 906-912.

55 Rust, G., Daniels, E., Satcher, D., Bacon, J., Strothers, H., & Bornemann, T. (2005). Ability of community health centers to obtain mental health services for uninsured patients. Jama, 293(5), 554-556.

56 Wang, P. S., Lane, M., Olfson, M., Pincus, H. A., Wells, K. B., & Kessler, R. C. (2005). Twelve-month use of mental health services in the United States: Results from the national comorbidity survey replication. Archives of General Psychiatry, 62(6), 629-640.

57 Olfson, M., & Marcus, S. C. (2010). National trends in outpatient psychotherapy. The American Journal of Psychiatry, 167(12), 1456-1463.

58 Krahn, D. D., Bartels, S. J., Coakley, E., Oslin, D. W., Chen, H., McIntyre, J., et al. (2006). PRISM-E: Comparison of integrated care and enhanced specialty referral models in depression outcomes. Psychiatric Services (Washington, D.C.), 57(7), 946-953.

59 Wildman, B. G., & Langkamp, D. L. (2012). Impact of location and availability of behavioral health services for children. Journal of Clinical Psychology in Medical Settings, 19(4), 393-400.

60 Trude, S., & Stoddard, J. J. (2003). Referral gridlock: Primary care physicians and mental health services. Journal of General Internal Medicine, 18(6), 442-449.

61 Cook, N. L., Hicks, L. S., O'Malley, A. J., Keegan, T., Guadagnoli, E., & Landon, B. E. (2007). Access to specialty care and medical services in community health centers. Health Affairs (Project Hope), 26(5), 1459-1468.

62 Rust, G., Daniels, E., Satcher, D., Bacon, J., Strothers, H., & Bornemann, T. (2005). Ability of community health centers to obtain mental health services for uninsured patients. JAMA, 293(5), 554-556.

63 Peikes, D., Chen, A., Schore, J., & Brown, R. (2009). Effects of care coordination on hospitalization, quality of care, and health care expenditures among Medicare beneficiaries: 15 randomized trials. JAMA, 301(6), 603-618.

64 McCall, N., & Cromwell, J. (2011). Results of the Medicare health support disease-management pilot program. The New England Journal of Medicine, 365(18), 1704-1712.

65 Fortney, J. C., Pyne, J. M., Mouden, S. B., Mittal, D., Hudson, T. J., Schroeder, G. W., et al. (2013). Practice-based versus telemedicine-based collaborative care for depression in rural federally qualified health centers: A pragmatic randomized comparative effectiveness trial. The American Journal of Psychiatry, 170(4), 414-425.

66 Oslin, D. W., Lynch, K. G., Maisto, S. A., Lantinga, L. J., McKay, J. R., Possemato, K., et al. et al. (2013). A randomized clinical trial of alcohol care management delivered in Department of Veterans Affairs primary care clinics versus specialty addiction treatment. Journal of General Internal Medicine 29(1), 162-68.

67 Zatzick, D., Roy-Byrne, P., Russo, J., Rivara, F., Droesch, R., Wagner, A., Dunn, C. et al. A randomized effectiveness trial of stepped collaborative care for acutely injured trauma survivors. Arch Gen Psychiatry. 2004; 61(5): 498–506.

68 Park, T. W., Cheng, D., Samet, J., Winter, M., & Saitz, R. (2015). Chronic Care Management for Substance Dependence in Primary Care Among Patients With Co-Occurring Disorders. Psychiatric Services 66(1)72–79.

69 Saitz, R., Cheng, D. M., Winter, M., Kim, T. W., Meli, S. M., Allensworth-Davies, D. et al. (2013). Chronic care management for dependence on alcohol and other drugs: the AHEAD randomized trial. JAMA 310(11): 1156-1167.

70 Krupski, A., Sears, J. M., Joesch, J. M., Estee, S., He, L., Dunn, C., et al. (2010). Impact of brief interventions and brief treatment on admissions to chemical dependency treatment. Drug and Alcohol Dependence, 110(1-2), 126-136.

71 Kaner, E. F., Beyer, F., Dickinson, H. O., Pienaar, E., Campbell, F., Schlesinger, C., et al. (2007). Effectiveness of brief alcohol interventions in primary care populations. The Cochrane Database of Systematic Reviews, (2)(2) CD004148.

72 Bertholet, N., Daeppen, J. B., Wietlisbach, V., Fleming, M., & Burnand, B. (2005). Reduction of alcohol consumption by brief alcohol intervention in primary care: Systematic review and meta-analysis. Archives of Internal Medicine. 165(9), 986–995.

73 Roy-Byrne, P., Bumgardner, K., Krupski, A., Dunn, C., Ries, R., Donovan, D., et al. (2014). Brief intervention for problem drug use in safety-net primary care settings: A randomized clinical trial. Jama, 312(5), 492-501.

74 Saitz, R., Palfai, T. P., Cheng, D. M., Alford, D. P., Bernstein, J. A., Lloyd-Travaglini, C. A., et al. (2014). Screening and brief intervention for drug use in primary care: The ASPIRE randomized clinical trial. Jama, 312(5), 502-513.

75 Unutzer, J., Chan, Y. F., Hafer, E., Knaster, J., Shields, A., Powers, D., et al. (2012). Quality improvement with pay-for-performance incentives in integrated behavioral health care. American Journal of Public Health, 102(6), e41-5.