NATIONAL COUNCIL
FOR COMMUNITY BEHAVIORAL HEALTHCARE

Behavioral Health / Primary Care Integration and the Person-Centered Healthcare Home

APRIL 2009

Table of Contents

Executive Summary 1

Introduction 4

Section 1: The Patient-Centered Medical Home 6

Section 2: The Need for Behavioral Health Services in the Patient-Centered Medical Home 10

Section 3: The Need for Primary Care Services in Behavioral Health Settings 14

Section 4: The Revised Four Quadrant Clinical Integration Model 23

Section 5: Policy and Practice Implementation Issues 31

Appendix A: The Chronic Care Model 36

Appendix B: The Quality Chasm Aims and Rules 39

Appendix C: Joint Principles of the Patient-Centered Medical Home 42

Appendix D: National Committee for Quality Assurance 44

Appendix E: The IMPACT Model 46

Endnotes 48

Prepared by
Barbara J. Mauer, MSW CMC
MCPP Healthcare Consulting

This discussion paper has been prepared under the auspices of the National Council for Community Behavioral Healthcare. Comments are welcomed and should be directed to the National Council offices at 1701 K Street NW, Suite 400 Washington, DC 20006-1526. www.TheNationalCouncil.org. Communications@thenationalcouncil.org. 202.684.7457.

All rights reserved. No part of this work may be reproduced or used in any form by any means, electronic or mechanical, without permission from the National Council for Community Behavioral Healthcare.

© 2009 by National Council for Community Behavioral Healthcare.

Executive Summary

People living with serious mental illnesses are dying 25 year earlier than the rest of the population, in large part due to unmanaged physical health conditions. To address the gap in current thinking about this health disparity, this paper presents evidence-based approaches to a person-centered healthcare home for the population living with serious mental illnesses. In doing so, it brings together current developments around the patient-centered medical home with evidence-based approaches to the integration of primary care and behavioral health.

In 2007, the American Academy of Family Physicians, American Academy of Pediatrics, American College of Physicians, and American Osteopathic Association released the following Joint Principles of the Patient-Centered Medical Home:

- Each patient has an ongoing relationship with a personal physician
- The personal physician leads a team of individuals at the practice level who collectively take
  responsibility for the ongoing care of patients
- The personal physician is responsible for providing for all of the patient's healthcare needs or
  appropriately arranging care with other qualified professionals
- Care is coordinated and/or integrated across all elements of the healthcare system
- Quality and safety are hallmarks
- Enhanced access to care is available
- Payment appropriately recognizes the added value provided to patients who have a patient-centered
  medical home.

At the core of the clinical approach of the patient-centered medical home is team based care that provides care management and supports individuals in their self management goals. Care management is central to the shift in orientation embodied in the medical home away from a focus on episodic acute care to a focus on managing the health of defined populations, especially those living with chronic health conditions.

The medical home's emphasis on self-care resonates with the behavioral health system's movement towards a Recovery and Resilience orientation. However, there has not been a clear articulation in the medical home model of the role of behavioral health. This is despite close alignment between the features of the medical home and the core components of research-based approaches to treating depression in primary care settings, for example the IMPACT model.

The core feature of the IMPACT model is collaborative care in which the individual's primary care physician works with a care manager/ behavioral health consultant to develop and implement a treatment plan and the care manager/behavioral health consultant and primary care provider consult with a psychiatrist to change the treatment plan if the individual does not improve. The IMPACT model has been found to double the effectiveness of care for depression, improve physical functioning and pain status for participants and lower long term healthcare costs.

This paper proposes that the national dialogue regarding the patient-centered medical home be expanded to incorporate the lessons of the IMPACT model, explicitly building into the medical home model the care manager/ behavioral health consultant and consulting psychiatrist functions that have proven effective in the IMPACT model. A related idea is the proposed renaming of the patient-centered medical home as the person-centered healthcare home, signaling that behavioral health is a central part of healthcare and that healthcare includes a focus on supporting a person's capacity to set goals for improved self management.

Having articulated the role of behavioral health in the person-centered healthcare home, this paper emphasizes the need for a bi-directional approach, addressing the integration of primary care services in behavioral health settings as well as the need for behavioral health services in primary care settings. Two models are proposed for behavioral health providers who envision a role as a healthcare home: a unified program similar to the Cherokee model in Tennessee; and focused partnerships between primary care and behavioral health providers.

Using the extensive research on addressing depression in primary care settings as a guide, the paper proposes the following six research-based components that should be available as part of a partnership between a behavioral health organization and a primary care, full-scope healthcare home:

1. Regular screening and registry tracking/outcome measurement at the time of psychiatric visits
2. Medical nurse practitioners/ primary care physicians located in behavioral health
3. A primary care supervising physician
4. An embedded nurse care manager
5. Evidence-based practices to improve the health status of the population with serious mental illnesses
6. Wellness programs

The Four Quadrant Model, developed by the National Council for Community Behavioral Health, describes the subsets of the population that behavioral health/ primary care integration must address. Each quadrant considers the behavioral health and physical health risk and complexity of the population and suggests the major system elements that would be utilized to meet the needs of that subset. This paper updates the Four Quadrant Model

to reflect the additional features of the person-centered healthcare home as they relate to the population served by each quadrant.

To conclude, the paper articulates a range of barriers to the creation of person-centered healthcare homes and the development of partnerships between behavioral health providers and primary care to meet the whole health needs of people with serious mental illnesses. The paper highlights that similar barriers have been encountered in the integration of depression treatment in primary care. The issues and barriers raised include: financing; policy and regulation; workforce; information sharing; and the need for greater research relating to the costs, cost offsets and health outcomes of patient-centered healthcare home models for the population with serious mental illnesses.

Introduction

People living with serious mental illnesses are dying 25 year earlier than the rest of the population, in large part due to unmanaged physical health conditions. Addressing this health disparity depends on providing access to effective physical healthcare services. In its National Wellness Action Plan for People with Mental Illnesses, the Center for Mental Health Services of the Substance Abuse and Mental Health Services Administration (CMHS/SAMHSA) made a commitment to promote wellness for people with mental illnesses by taking action to prevent and reduce early mortality by 10 years over the next 10 year time frame.

The Four Quadrant Clinical Integration Model developed by the National Council for Community Behavioral Healthcare articulates a conceptual model for the integration of physical and behavioral health services related to different populations, including the population with serious mental illnesses. However, the main focus of integration initiatives nationally has been on the integration of behavioral health services into primary care. The Four Quadrant Model describes the need for a bi-directional approach, addressing the need for primary care services in behavioral health settings as well as the need for behavioral health services in primary care settings. Models for the treatment of depression in primary care are well developed, most notably the IMPACT model. Future initiatives to create a bi-directional approach that lends equal weight to the integration of primary care services in behavioral health settings can build on these models.

At the same time, there is a need to align integration with developments around the medical home. The medical home model is gaining momentum as a way of effectively delivering care in the context of chronic disease. However, this has been developed in isolation from the research on integrated physical and behavioral healthcare. Despite the fact that the IMPACT model aligns with many of the core components of the patient-centered medical home including care management and collaborative care, there has not been a clear articulation in the medical home model of the importance of behavioral health services. Furthermore, the medical home model has not been adapted for people living with serious mental illnesses. The behavioral healthcare system has historically been a specialty care system, although for many of the individuals served in the public sector, it has also been their principal source of care. The national initiative on medical homes begs the question: What does a medical home look like for people living with serious mental illnesses?

To address this gap in current thinking, this paper presents evidence-based approaches to a patient-centered healthcare home for the population with serious mental illnesses. This

discussion paper has been prepared for policy makers, planners, and providers of general healthcare and behavioral health services. It is focused on the integration of behavioral health and general healthcare services in light of the national conversation regarding the development of patient-centered medical homes, and is not intended to be a detailed review of integration initiatives and their evolution.

Section 1 outlines the concept of the patient-centered medical home and its critical components.

Section 2 outlines the rationale for successfully integrating behavioral health into the medical home, using evidence-based practices such as the IMPACT model, identifies alignment between IMPACT and the medical home model, and proposes restructuring and renaming the medical home concept as a Person-Centered Healthcare Home.

Section 3 draws on the IMPACT model and other evidence-based approaches to develop the features of a healthcare home for the population with serious mental illnesses, aligned with established principles of recovery.

Section 4 revises the Four Quadrant Clinical Integration Model in light of the features of the person-centered healthcare home.

Section 5 identifies challenges and opportunities in implementing the bi-directional person-centered healthcare home.

The Person-Centered Healthcare Home proposed here is intended to generate momentum for bringing behavioral health/primary care integration into the current medical home conversation at national and state levels, and to provide a template for future federal, state, and local initiatives. While the services and system components to be organized will be different for children and youth, the considerations for developing clinical, structural, and financial collaborative care models for children and youth are very similar to those described here for adults.

Section 1: The Patient-Centered Medical Home

What is the Medical Home Concept?

While the medical home concept has its origins in pediatric care, the concept has expanded as the general healthcare system has contemplated the shift from a focus on episodic acute care to a focus on managing the health of defined populations, especially those living with chronic health conditions.

Several seminal commentaries influenced thinking about how team-based care might improve clinical care and achieve optimal population health, establishing the foundation for a more detailed conceptualization of the medical home:

- **The Chronic Care Model**,[2] a structured approach for clinical improvement through team based care supported by an organizational and information technology infrastructure, which is the basis for the Bureau of Primary Health Care's (BPHC) **Health Disparities Collaborative**.[3]
- The Institute of Medicine's (IOM) first **Quality Chasm**[4] report which articulated Six Aims and Ten Rules to guide the redesign of healthcare, including the importance of team-based care. This roadmap for improving quality in the healthcare system stated that healthcare should be safe, effective, patient-centered, timely, efficient, and equitable.

The Chronic Care Model, Health Disparities Collaborative and Quality Chasm Aims and Rules are described in Appendices A and B.

Building on this foundation, the American Academy of Family Physicians, American Academy of Pediatrics, American College of Physicians, and American Osteopathic Association released their **Joint Principles of the Patient-Centered Medical Home** in 2007 (summarized here with full text in Appendix C).

- **Personal physician**—each patient has an ongoing relationship with a personal physician trained to provide first contact, continuous, and comprehensive care.
- **Physician directed medical practice**—the personal physician leads a team of individuals at the practice level who collectively take responsibility for the ongoing care of patients.
- **Whole person orientation**—the personal physician is responsible for providing for all the patient's healthcare needs or taking responsibility for appropriately arranging care with other qualified professionals. This includes care for all stages of life: acute care, chronic care, preventive services, and end of life care.
- **Care is coordinated** and/or integrated across all elements of the complex healthcare system (e.g., subspecialty care, hospitals, home health agencies, nursing homes) and the patient's community (e.g., family, public and private community based services). Care is facilitated by registries, information technology, health information exchange, and other means to assure that patients get the indicated care when and where they need and want it in a culturally and linguistically appropriate manner.
- **Quality and safety** are hallmarks of the medical home.
- **Enhanced access** to care is available through systems such as open scheduling, expanded hours, and new options for communication between patients, their personal physician, and practice staff.
- **Payment** appropriately recognizes the added value provided to patients who have a patient-centered medical home.[5]

Barr[6] recently summarized the rationale for the patient-centered medical home, pointing to the unwarranted variation in our nation's delivery of healthcare and the lack of relationship between what is spent and the quality of the services that are delivered. He also notes that, while research suggests a robust primary care system is a major characteristic of an efficient and high-quality healthcare system, the U.S. primary care system is uncertain, perhaps close to collapse.

Against this backdrop, Barr reviews the fast-paced development of activities to test medical home models and the establishment of coalitions that include medical professional societies, large employers, health plans, and government agencies. The pace has quickened since 2006 when the Medicare Medical Home Demonstration Project was authorized in the Tax Relief and Health Care Act. Spurred by the Medicare legislation, large health plans, as well as Medicare and Medicaid, are moving ahead with demonstration projects to test new payment methods and study the quality and cost advantages of the model.[7,8,9] This speaks to the shared desire to develop delivery and reimbursement models that address the shortcomings of the healthcare system: "A practice recognized as a patient-centered medical home would receive compensation for the time and work physicians spend to provide comprehensive and coordinated services. This approach is distinctly different from the current system which pays for procedures and treatment of individual diseases rather than valuing and encouraging treatment of the whole patient, preventing chronic illness, and managing multiple, interrelated and ongoing health problems."[10]

In early 2008, the National Committee for Quality Assurance (NCQA) announced the development of standards for medical practices that wish to be certified as patient-centered medical homes. The NCQA Physician Practice Connections and Patient-Centered Medical Home materials articulate nine Standards for practices to meet, including use of patient self management support, care management, evidence-based guidelines for chronic conditions and performance reporting and improvement (summarized in Appendix D).[11]

Why is Care Management Important?

At the core of the patient-centered medical home clinical approach is team based care that provides care management and supports individuals in their self management goals. In a report prepared for the Commonwealth Fund, care management was identified as being among the few policy options that hold promise not only of containing costs but also of improving health outcomes for high-risk populations. "Care management is the coordination of care in order to reduce fragmentation and unnecessary use of services, prevent avoidable conditions, and promote independence and self-care. Alternatively called advanced care management, targeted case management, high-cost or high-risk case management, care coordination, disease management, and other terms, care management programs manifest themselves in a wide variety of ways. In one project, care management encompassed personalized nurse counseling, pharmacy review, utilization management, case management, and depression management programs." [12]

This emphasis on self-care resonates with the behavioral health system's movement towards a Recovery and Resilience orientation, utilizing approaches such as the newly revised **Wellness Management and Recovery** program or Copeland's **Wellness Recovery Action Plan**. With these models, the behavioral health field has developed structured approaches that strengthen the individual's capacity to set goals for improved self management of specific conditions and to problem solve barriers using the resources of the community and personal support systems in addition to formal services. These approaches are critical to meeting the needs of people living with serious mental illness as well as chronic health conditions.

The five clinical functions of the care manager, as identified in the BPHC Health Disparities Collaborative, [13] are:

- Develop and maintain rapport with patient and provider
- Educate the patient and the family
- Monitor symptoms and communicate findings to provider
- Develop and maintain a self-care action plan
- Maximize adherence to the treatment plan through negotiation of solutions to treatment-emergent problems

Unlike disease management models with arms-length, telephonic care management, in the Chronic Care Model and patient-centered medical home the **care manager is embedded in the clinical team**.

The community health centers participating in the Health Disparities Collaborative have also identified the importance of **enabling services** in helping engage and support individuals with chronic health conditions. These are non-medical services that facilitate access to timely and appropriate medical care, including transportation, language assistance, case management, and community outreach and education. This set of activities is ancillary to the focused care management task of monitoring health status and calibrating care for an individual and is generally not performed by the care manager. However, the team's success in managing chronic health conditions depends on the provision of these enabling services alongside the clinical services.

Care management is the key to transforming a healthcare system geared towards acute problems into one focused on addressing health needs from a longitudinal perspective (i.e., managing chronic illness and facilitating preventative self-care). Longitudinal monitoring and timely response to the course of illness is how care management transforms treatment as usual. [14] This focus on ongoing accountability and responsibility for individuals being cared for should be distinguished from old ideas about "gatekeeping" access to care—a distinction confounded by the varying ways in which the terms care manager and case manager have been used in the last twenty years.

Section 2: The Need for Behavioral Health Services in the Patient-Centered Home

The Case for Behavioral Health as Part of the Medical Home

Following the initial Quality Chasm report, the IOM subsequently embraced the applicability of the Aims and Rules for improving the quality of healthcare for mental and substance-use conditions, and made two overarching recommendations: [15]

- Health care for general, mental, and substance-use problems and illnesses must be delivered with an understanding of the inherent interactions between the mind/brain and the rest of the body.
- The aims, rules, and strategies for redesign set forth in Crossing the Quality Chasm should be applied throughout mental/substance use health care on a day-to-day operational basis but tailored to reflect the characteristics that distinguish care for these problems and illnesses from general health care.

Despite the IOM's articulation that behavioral health is a central part of healthcare, there has not been a clear articulation in the medical home model of the findings from researched approaches to treating depression (frequently co-morbid with chronic medical conditions) in primary care settings.

A preeminent research example is **IMPACT**, one of the largest treatment trials for depression, in which Unützer and his colleagues followed 1,801 depressed, older adults in 18 diverse primary care clinics across the United States for two years, utilizing care management within a stepped care approach.

The results of the original IMPACT trials have been widely published and include findings that the model: [16]

- Doubled the effectiveness of care for depression (see Figure 1)
- Benefitted various populations
- Was effective in diverse settings
- Resulted in improved physical functioning and pain status for participants
- Resulted in lower long term healthcare costs (see Table 1)

Doubles Effectiveness of Care for Depression

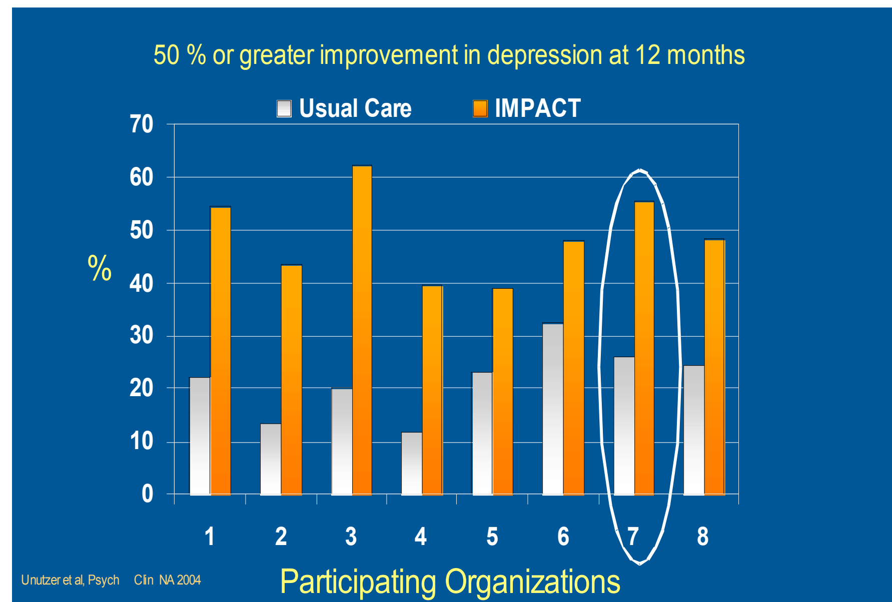


Figure 1: Percentage improvement in depression using IMPACT model and care as usual

Since the end of the research trial, a number of organizations in the United States and abroad have adapted and implemented the IMPACT program with diverse populations, serving individuals of all ages and expanding the scope of services beyond depression to anxiety, PTSD, ADHD, and other conditions frequently found in primary care. The five essential elements of IMPACT include:

- **Collaborative care as the cornerstone of the IMPACT model** in which the team functions in two main ways: the individual's primary care physician works with a care manager/ behavioral health consultant to develop and implement a treatment plan (medications and/or brief, evidence-based psychotherapy) and the care manager/behavioral health consultant and primary care provider consult with the psychiatrist to change treatment plans if individuals do not improve.

Cost Category	Overall cost in $ (mean)	Intervention group cost in $	Usual care group cost in $	Difference in $
IMPACT Intervention cost	NA	522	0	522
Outpatient mental health costs	661	558	767	-210
Pharmacy costs	7284	6,942	7,636	-694
Other outpatient costs	14306	14,160	14,456	-296
Total outpatient cost	22516	22,182	22,859	-677
Inpatient medical costs	8452	7,179	9,757	-2578
Inpatient mental health / substance abuse costs	114	61	169	-108
Total health care cost over 4 years	31082	29,422	32,785	-3363

Table 1: Comparing th four year costs of IMPACT and care as usual

- **A care manager/behavioral health consultant (BHC)** who may be a nurse, social worker, or psychologist and may be supported by a medical assistant or other paraprofessional.
- **A designated psychiatrist** who consults to the care manager/behavioral health consultant and primary care physician on the care of individuals who do not respond to treatments as expected.
- **Outcome measurement and registry tracking** through which IMPACT care managers measure depressive or other symptoms at the start of an individual's treatment and regularly thereafter, using a validated measurement tool (e.g., the PHQ-9).
- **Stepped care** in which treatment is adjusted based on clinical outcomes and according to an evidence-based algorithm.

Principles of the Patient-Centered Medical Home / Elements of the IMPACT Model	Personal physician	Team practice	Whole person orientation	Coordinated/ integrated care	Quality and safety	Enhanced access
Collaborative team care	X	X	X	X	X	
Care manager /BHC		X	X	X	X	X
Designated psychiatrist		X	X	X	X	X
Outcome measurement		X		X	X	
Stepped care		X	X	X	X	X

Table 2: Crosswalk between IMPACT elements and the principles of the person-centered medical home

These IMPACT elements are described further in the Appendix E. Table 2 cross-walks the IMPACT elements to the principles of the patient-centered medical home in order to assess the alignment between the two approaches.

There is significant alignment between these approaches, which suggests that the national dialogue regarding the patient-centered medical home should be expanded to incorporate the lessons of the IMPACT model. This would mean explicitly building in the care manager/behavioral health consultant and consulting psychiatrist as a part of the medical home team.

While there will always be a boundary between primary care and specialty care, and there will always be tradeoffs between the benefits of specialty expertise and of integration, stepped care is a clinical approach to assure that the need for a changing level of care is addressed appropriately for each person. Stepped care creates a structure for feedback from specialty care to primary care, which is the venue in which the general population would receive the majority of their care in the medical home model.

The expanded scope of the medical home with behavioral health capacity and stepped care could be reflected by **renaming the patient-centered medical home as the person-centered healthcare home**, signaling that behavioral health is a central part of healthcare and that healthcare includes a focus on supporting a person's capacity to set goals for improved self management, using the resources of the community and personal support systems.

A person-centered healthcare home would accept 24/7 accountability for a population and include:

- **Preventive screening/health services**
- **Acute primary care**
- **Women and children's health**
- **Behavioral health**
- **Management of chronic health conditions**
- **End of life care**

These services would be supported by enabling services, electronic health records, registries, and access to lab, x-ray, medical/surgical specialties and hospital care. This capacity is referenced in the remainder of this paper as a full-scope healthcare home.

The person-centered healthcare home should be implemented bi-directionally: identify people in primary care with behavioral health conditions and serve them there unless they need stepped specialty behavioral healthcare; and, identify and serve people in behavioral healthcare that need routine primary care and step them to their full-scope healthcare home for more complex care.

Section 3: The Need for Primary Care Services in Behavioral Health Settings

What is the Need for Primary Care Services?

The National Association of State Mental Health Program Directors (NASMHPD) found that 3 out of every 5 persons with serious mental illnesses die due to a preventable health condition. A Maine study of Medicaid members with and without serious mental illnesses revealed that persons living with serious mental illnesses, when compared to an age and gender matched Medicaid population, have significantly higher prevalence of major medical conditions that are in large part preventable, including diabetes, metabolic syndrome, lung and liver diseases, hypertension, cardiovascular disease, infectious diseases, and dental disorders. Seventy percent of Maine's population living with serious mental illnesses has at least one of these chronic health conditions, 45% have two and almost 30% have three or more.[17]

The NASMHPD report estimated that people with serious mental illnesses are dying 25 years earlier than the rest of the population.[18] As pointed out in the report, chronic health conditions and early death are significant barriers to the achievement of recovery.

In response to the NASMHPD report, CMHS/SAMHSA convened a Summit in 2007 and has produced a National Wellness Action Plan for People with Mental Illnesses, grounded in the following Vision and Pledge:

- We envision a future in which people with mental illnesses pursue optimal health, happiness, recovery, and a full and satisfying life in the community via access to a range of effective services, supports, and resources.
- We pledge to promote wellness for people with mental illnesses by taking action to prevent and reduce early mortality by 10 years over the next 10 year time period.[19]

Holistic

Recovery encompasses an individual's whole life, including mind, body, spirit, and community.

Recovery embraces all aspects of life, including housing, employment, education, mental health and healthcare treatment and services, complementary and naturalistic services, addictions treatment, spirituality, creativity, social networks, community participation, and family supports as determined by the person.

Families, providers, organizations, systems, communities, and society play crucial roles in creating and maintaining meaningful opportunities for consumer access to these supports.

The core components of Recovery, as described in the Substance Abuse and Mental Health Services Administration's **Consensus Statement on Recovery** are: [20]

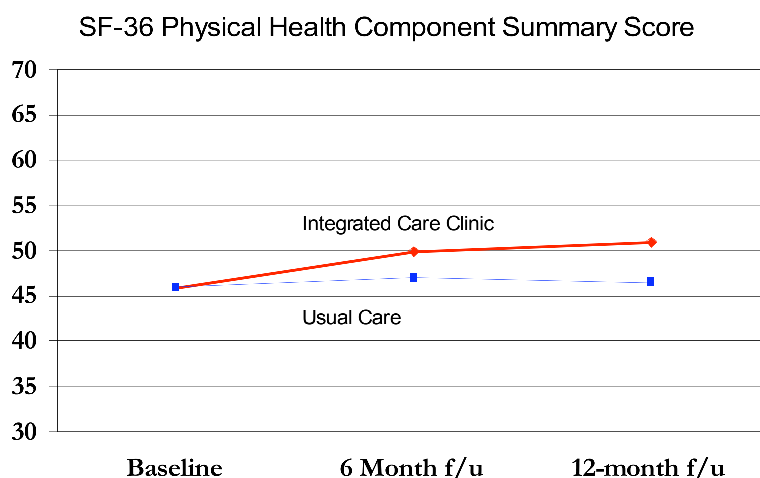
- Self-Direction
- Individualized and Person-Centered
- Empowerment
- Holistic
- Non-Linear
- Strengths-Based
- Peer Support
- Respect
- Responsibility
- Hope

These components of recovery are consistent with the underlying values expressed in the Quality Chasm Six Aims and Ten Rules (see Appendix B) and function as a framework for the person-centered healthcare home for individuals living with serious mental illnesses. The Holistic component is most closely tied to the issue of being afforded access to healthcare that supports the whole person.

To achieve the recovery components and Wellness Pledge, people with serious mental illnesses will need access to quality healthcare that is timely, affordable, and appropriate, including the full-scope healthcare home services articulated above. This is where their healthcare needs should be met, not through emergency departments.

There is strong evidence of the positive health impact of access to high quality, integrated care for individuals with serious mental illnesses. A randomized trial conducted by Druss[21] in the VA system assigned individuals living with serious mental illnesses to receive primary care either through an integrated care initiative located in mental health clinics or to the VA general medicine clinic. A multidisciplinary team worked in the integrated care clinic where a nurse practitioner provided most of the medical care, a nurse care manager provided patient education, liaison with behavioral health care providers, and case management services, and a family practitioner supervised the nurse practitioner and served as liaison to psychiatry and physicians in other medical services.

The model emphasized patient education, preventive services and collaboration with behavioral health providers. As shown in Figure 2, individuals served in the integrated model were significantly more likely to have made a primary care visit, had a greater mean number of primary care visits, were more likely to have received 15 of 17 preventive measures, and had a significantly greater improvement in their health as reflected in the composite SF-36 score, shown in Figure 2.[22]



Druss BG et al. Integrated care for patients with serious mental disorders: a ranomized trial. Achives of General Psychiatry 2001; 58:861-8

Figure 2: Comparing the health improvement from integrated care and care as usual as individuals with serious mental illnesses in the VA

Currently, many individuals served by the mental health system are not able to access primary care settings, due to coverage issues, stigma and the difficulties of fitting into the fast-paced visit model of primary care. For example, "the VA system offers better health care access and more support for recommended monitoring and disease management than is available to many people with serious mental illnesses. Yet, in the VA system, the odds were greater that a diabetic with a psychosis or substance use disorder would not receive standard of care monitoring (e.g., HbA testing, LDL testing, eye examination) [compared to a diabetic without a behavioral health condition], with the predictable result of poor blood sugar and blood pressure control. This may be "the best case scenario" currently experienced by diabetic individuals with serious mental illnesses—those without health care coverage and/or a medical home would likely receive less monitoring and disease management."[23]

The underlying ideas for the medical home (e.g., Chronic Care Model, Six Aims, Ten Rules, and Joint Principles) all espouse change in how primary care is delivered to make it more person-focused and accessible. However, without careful consideration of how to assure access for and engagement of persons living with serious mental illnesses, this health disparities population may not benefit from the healthcare delivery system improvements that are being proposed for the general population.

What Should Behavioral Health Providers be Doing?

Not all behavioral health providers will envision a future role in a person-centered healthcare home. However, all behavioral health providers have a clinical responsibility and accountability for individuals receiving behavioral health services. If these services include prescribing psychotropic medications, there is an additional set of accountabilities related to the risk of metabolic syndrome and the whole health of the person:

- Assure **regular screening and tracking at the time of psychiatric visits** for all behavioral health consumers receiving psychotropic medications—**check glucose and lipid levels**, as well as **blood pressure and weight and Body Mass Index (BMI)**, record and track changes and response to treatment and use the information to obtain and adjust treatment accordingly. The individual and family history, baseline, and longitudinal monitoring as recommended by The American Diabetes Association, American Psychiatric Association, American Association of Clinical Endocrinologists, and the North American Association for the Study of Obesity in 2004[24] should be the standard of practice.
- Identify the **current primary care provider for each individual**, and when none exists, assist the individual in establishing a relationship with a primary care provider and accessing care.
- Establish specific **methods for communication and treatment coordination with primary care providers** and assure that timely information is shared in both directions.
- **Provide education** and link individuals to self-management assistance and support groups.

For behavioral health providers envisioning a future role as a person-centered healthcare home, there are two pathways to follow. Behavioral health providers who want to become full-scope healthcare homes for people living with serious mental illnesses should look to the Cherokee model and seek to become full-scope healthcare homes for a broader community population than those currently receiving behavioral health services. The Crider Health Center in Missouri is an example of a behavioral health provider choosing this path, seeking FQHC funding and applying the Cherokee model.[25]

Behavioral health providers who want to partner with full-scope healthcare homes to create person-centered healthcare homes for people living with serious mental illnesses should **organize a parallel to the IMPACT primary care model**. This includes a collaborative team based approach, care management, a designated primary care consultant, registry/

outcome measurement, and stepped care for the range of primary care needs in behavioral health settings.

What Does a Healthcare Home Look Like for People Living with Serious Mental Illnesses? The Cherokee Model

Many believe that Cherokee Health Systems, an organization with 23 sites in 13 Tennessee counties that is both a primary care provider and a specialty behavioral health provider, is the preferred model. Integrated care is at the center of the organization's vision and mission and practiced across an array of comprehensive primary care, behavioral health, and prevention programs and services.[26] Cherokee is integrated structurally and financially, which supports the focus on clinical integration. A behavioral health consultant is an embedded, full-time member of the primary care team. A psychiatrist is also available, generally by telephone, for medication consultation. The behavioral health consultant provides brief, targeted, real-time interventions to address the psychosocial needs and concerns in the primary care setting.[27]

For individuals that need specialty behavioral health services, there is a primary care provider embedded in the specialty behavioral health team. Cherokee, described in a Bazelon report as a unified program, hires primary care providers who are comfortable with mental health issues and believes that all front line, administrative, and support staff must be essential players, committed to the holistic approach. The local community is aware that people are treated for all types of illnesses at Cherokee, and mental health consumers find that all are treated in the same way, reducing the stigma of seeking mental health treatment.[28]

Collaborative care is built into Cherokee's unified program model because Cherokee focuses on clinical integration as its mission. Just placing both the behavioral health and the primary care functions under the same organizational structure or within a physical facility is co-location, not necessarily collaborative care. Similarly, placing all of the funding into a single budget will not alone result in co-location, much less clinical collaboration. The focus upon the clinical process creates collaborative care.

What Does a Healthcare Home Look Like for People Living with Serious Mental Illnesses? The Partnership Model

Looking around the country at communities with multiple public and private primary care and behavioral health provider systems, it is not clear how the organizational and structural complexity will resolve itself into fully integrated organizations with unified programs in the near future.

An alternative to the unified program can be found in focused partnerships between primary care and behavioral health providers that are based in local problem solving. This arrangement may prove to be robust over time, or could eventually result in partners coming together into a unified program model.

For behavioral health providers interested in developing a partnership approach to the person-centered healthcare home, the extensive research on providing interventions to address depression in primary care settings can act as a guide. This thirty-year body of research demonstrates that while treatment guidelines, screening, patient and provider education, and tracking systems are all necessary, they are not sufficient in delivering improved outcomes for depression in primary care. This research tells us that:

- Continuing education and/or distributing guidelines alone do not change practitioner behavior or outcomes.
- Adding patient tracking with a care manager significantly improves outcomes.
- Including a specialist in an integrated treating or consulting role improves outcomes the most.[29]

In a partnership model between a behavioral health organization and a full-scope healthcare home, the organizations must assure mission alignment and be deliberate about designing clinical mechanisms for collaboration, supported by structural and financial arrangements appropriate to their local environment. Ideally, the following six components will be available as part of the partnership. The first three should be in place at a minimum:

1. **Regular screening and registry tracking/outcome measurement at the time of psychiatric visits**
2. **Medical nurse practitioners/ primary care physicians located in behavioral health**
3. **Primary care supervising physician**
4. **Embedded nurse care manager**
5. **Evidence-based practices to improve the health status of the population with serious mental illnesses**
6. **Wellness programs**

The following section describes each component in some detail. The research base for each component is presented below the description in italics.

1. **Assure regular screening and registry tracking/outcome measurement at the time of psychiatric visits** for all individuals receiving psychotropic medications—check **glucose and lipid levels**, as well as **blood pressure and weight/BMI**, record and track changes and response to treatment, and use the information to obtain and adjust treatment accordingly.

   Basis for this component: *The individual and family history, baseline and longitudinal monitoring as recommended by The American Diabetes Association, American Psychiatric Association, American Association of Clinical Endocrinologists, and the North American Association for the Study of Obesity in 2004 should be the standard of practice. This is also a corollary to the IMPACT registry and tracking of symptom status in order to support stepped care.*

2. **Locate medical nurse practitioners/primary care physicians in behavioral health facilities—**provide routine primary care services in the behavioral health setting via a nurse practitioner or physician out-stationed from the full-scope healthcare home. Organizations implementing this model have found that adoption of primary care improvements such as open access scheduling and group visits are effective methods for engaging people in healthcare. The population will present with a mixture of acute care concerns, prevention and screening needs, and chronic medical conditions. The strategy of easy access can be used to engage individuals in their healthcare and connect them to an ongoing relationship with the full-scope healthcare home for their complex healthcare concerns. Nurse practitioners should be highly experienced, with readily available access to a supervising physician and an ongoing training/supervision component to ensure quality of care.[30] A behavioral health organization hiring a nurse practitioner directly, without the backup of a skilled physician and a full-scope healthcare home, cannot be described as a healthcare home and is not a recommended pathway.

   Basis for this component: *Health & Education Services, Inc. in Massachusetts has five years of experience with a nurse practitioner model. Their data indicates that emergency department visits were 42% lower in the study group; the study group also had 66% more physical examinations and 51% more primary care provider contact compared to the control group.*[31] *The VA study described above (see page 9) placed a nurse practitioner with a supervising physician in the behavioral health setting. This is a corollary to the IMPACT placement of a behavioral health consultant/care manager in the primary care setting.*

3. **Identify a primary care supervising physician** within the full-scope healthcare home to provide consultation on complex health issues for the psychiatrist, medical nurse practitioner, and/or nurse care manager, if there is no primary care physician practicing at the behavioral health site.

   Basis for this component: *This is an alternative to having a primary care physician on site and has its corollary in the IMPACT consulting psychiatrist, who provides assistance in complex problem solving with the care team. The physician would be accountable for determining when stepped care to the full-scope healthcare home or specialty/hospital care would be necessary and appropriate.*

4. **Embed nurse care managers** within the primary care team working in the behavioral health setting, to support individuals with significantly elevated levels of glucose, lipids, blood pressure, and/or weight/BMI. Accountabilities would include keeping the registry (glucose, lipids, blood pressure, and weight/BMI) current and complete, longitudinal monitoring of health status and communicating the need for treatment adjustments to the primary care team, as well as coordinating care across multiple medical providers on behalf of the team. For people who have established external

primary care relationships and choose not to use the primary care services available in the behavioral health setting, the nurse care manager would work to establish this team relationship with outside healthcare providers and might accompany individuals to outside medical appointments.

Nurse care managers and the primary care team would use standard protocols and curriculum to assure the following services in primary care settings:

- Intake Assessment
- Health examination
- Medication list
- Vital signs monitoring
- Preventive healthcare
- Disease specific goals
- Action plan
- Healthcare proxy
- Health education

The nurse care managers would work with individuals to connect them to the full-scope person-centered healthcare home (using the behavioral health entry point as the entry point into primary healthcare as well as access to dental services), link them to enabling services, benefits counseling and peer mentors, as well as plan and co-lead with peers ongoing groups that support smoking cessation, weight management, and physical exercise.

Behavioral health case managers can be redeployed to the care management function, especially for individuals with less complex healthcare needs, after being provided with training in chronic medical conditions and care management. All behavioral health clinicians/case managers play key team roles in the following ways: assuring that behavioral health treatment plans incorporate selected general healthcare goals and actions from the primary care arena; working with nurse care managers on specific elements of individuals' self management plans; accompanying individuals to medical appointments; linking to non-medical enabling functions; and providing assistance with community resources such as housing and other supports. For collaborative care to be effective, the respective roles and responsibilities of all members of the team should be defined, and structures put in place to support each member of the team.

Basis for this component: *These nurse care manager approaches and tools are currently being studied in NIMH-funded research trials such as PCARE (Primary Care Access, Referral, and Evaluation), led by Druss in a Georgia behavioral health agency,*[32] *and HOPES (Helping Older People with SMI Experience Success), led by Bartels in multiple New England sites.*[33] *This is the corollary to the IMPACT care manager who assures longitudinal monitoring and timely response to the course of illness.*

5. **Use the evidence-based practices developed to improve the health status of the general population, adapting these practices for use in the behavioral health system**. There are evidence-based practices in clinical preventive services that should be utilized with all populations, whether or not they are receiving services related to a particular diagnosis or condition. This is an area for improvement in services to persons with serious mental illness, who historically have had difficulty accessing healthcare services for acute or chronic medical conditions, not to mention clinical screening and preventive services (see discussion on page 9).

   Basis for this component: *The U.S. Preventive Services Task Force (USPSTF)[34] was convened by the U.S. Public Health Service to rigorously evaluate clinical research in order to assess the merits of preventive measures, including screening tests, counseling, immunizations, and chemoprevention. The USPSTF recommendations form the basis for the screening program, to be made available to any person receiving behavioral health services.*

6. **Create wellness programs.** Utilize proven methods and materials developed for engaging individuals in managing their health conditions, adapted for use in the mental health setting, with peers serving as group facilitators.

   Basis for this component: *The Chronic Disease Self Management Program is a research-based approach that was developed by Lorig for people living with chronic health conditions, such as diabetes. This model uses structured materials, trained peers and group processes that are effective in helping people take control of their chronic health conditions. The HARP project (Health and Recovery Peer Project) is an NIMH-funded study led by Druss to adapt the Lorig model in a peer-led medical self management program for mental health consumers in Atlanta, Georgia.[35]*

   The ***InSHAPE*** *program in New Hampshire includes the following methods:*

- *Individualized fitness and healthy lifestyle assessment*
- *Individual meetings with a "Health Mentor"*
- *Membership vouchers to local fitness centers (e.g., YMCA; Dance-exercise center; Women's fitness center)*
- *Motivational rewards*
- *Group health education/motivational "Celebrations"*
- *Nurse evaluation and consultation*

The program evaluation shows changed nutrition and exercise practices, reductions in waist circumference and blood pressure, as well as increases in self-efficacy for participants.[36]

Section 4: The Revised Four Quadrant Clinical Integration Model

The National Council's planning model for the clinical integration of health and behavioral health services focuses on the populations to be served. This Four Quadrant Model builds on the 1998 consensus document for mental health (MH) and substance abuse/addiction (SA) service integration, as initially conceived by state mental health and substance abuse directors (NASHMHPD/ NASADAD) and further articulated by Minkoff and his colleagues.[37]

The Behavioral Health/ Primary Care integration model assumes this competency-based MH/SA integration concept within the behavioral health services offered and incorporates the MH/SA integration model to describe the subsets of the population that Behavioral Health/ Primary Care integration must address.

Each quadrant considers the behavioral health and physical health risk and complexity of the population and suggests the major system elements that would be utilized to meet the needs of a subset of the population. **The Four Quadrant model is not intended to be prescriptive about how care is organized in a quadrant or for an individual. It is a conceptual framework and collaborative planning tool for addressing the needs of population subsets (not individuals) in each local system.** Using the evidence regarding effective clinical practices, each community must develop its uniquely detailed operational arrangements, depending on the factors in their environment, including:

- Array of and capacity of services in the community—what services are available and is there access to sufficient amounts of the services that are needed?

- Consumer preferences—are individuals more likely to accept care in primary care or specialty settings?
- Trained workforce—do current behavioral health and primary care staff have the right skills to deliver planned services onsite?
- Organizational support in providing services—do managers provide encouragement and support for collaborative activities and what is the impact on operations, documentation, billing, and risk management?
- Reimbursement factors—do payers support collaborative care and make it easy or difficult for the behavioral health and primary care sectors to work together?[38]

The experience with twelve sites across the country (each site comprised of a partnership between a primary care organization and a behavioral health organization) that have participated in the **National Council's Primary Care-Mental Health Collaborative Care Project**[39] reinforces this local perspective. Each of the sites has focused on differing aspects of the interface between primary care and behavioral health, and adopted differing strategies for improving the quality of care in their communities. Adapting to the local context may necessitate making adjustments to the evidence-based clinical practice, which underlines the necessity of using a registry to track achievement of outcomes comparable to those achieved by the evidence-based practice.

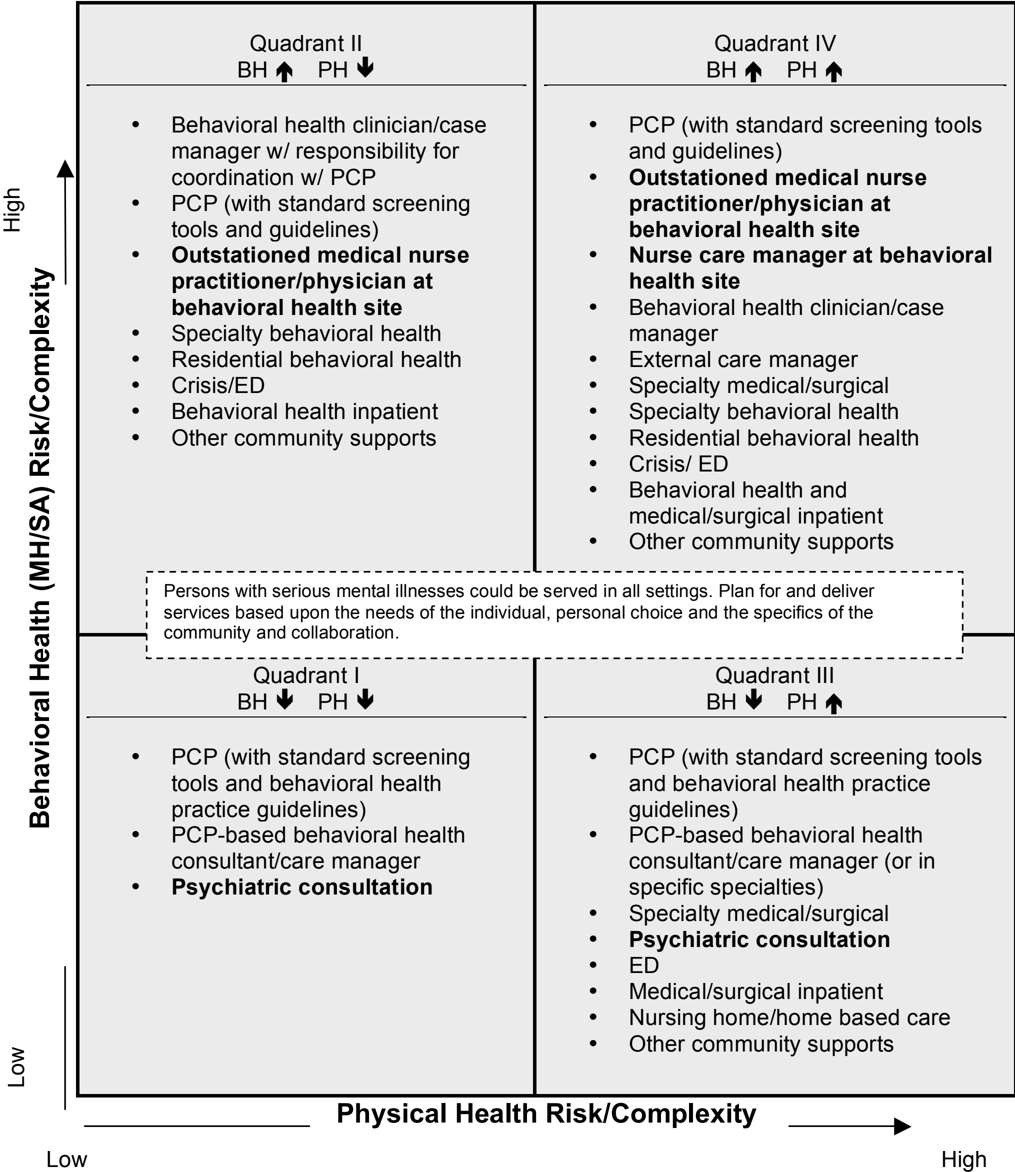
While system planning requires a population-based method; service planning should be person-centered. **Therefore, the Four Quadrant Model does not specify in which quadrant individuals should receive care and it should be possible to move from one population subset to another over time**. Persons living with serious mental illnesses, if seeking care in primary care, have selected a person-centered healthcare home. Consistent with appropriate clinical practice, that choice should be honored. The primary care and specialty behavioral health system must develop protocols, however, that spell out how acute behavioral health episodes or high-risk individuals will be supported.

This will also lead to clarity regarding the collaboration model for serving people living with serious mental illnesses who are stable in their recovery, based upon personal choice and the specifics of the community collaboration. For example, in Washtenaw County, Michigan, the unified program initiative sponsored by the **Washtenaw Community Health Organization** places behavioral health staff in public or private primary care settings in the community whenever a primary care clinic serves a minimum of 40 individuals also being served by the behavioral health system, with an explicit vision of having a majority of behavioral health consumers served within their primary care setting rather than the specialty behavioral health setting.[40]

The discussion that follows **revises earlier descriptions of the Four Quadrant Model to incorporate the person-centered healthcare home concepts** discussed in this paper. Most provider organizations will find that they are involved in at least two quadrants (e.g., most primary care clinics have populations in Q I and Q III, most behavioral health organizations

have populations in Q II and Q IV, unified program models such as Cherokee and Washtenaw County are serving populations in all four quadrants). The principle of stepped care says that each provider needs to be able to address needs for populations in both quadrants (e.g., adding the nurse care manager for those with complex co-morbidity).

The use of the Four Quadrant Model to consider the population focus, the model elements, and clinical roles would result in the following broad approaches. The formatting has been changed from earlier discussions of the model, and **major revisions are in bold**.



QUADRANT I

The Population: Low to moderate behavioral health and low to moderate physical health complexity/risk.

The Model: **Person Centered Healthcare Home: a primary care team that includes a behavioral health consultant/care manager, psychiatric consultant, screening for behavioral health concerns, and stepped care.**

The Providers: The primary care provider assures the full-scope healthcare home and uses standard behavioral health screening tools and practice guidelines to serve individuals in the primary care practice. Use of standardized behavioral health tools by the primary care provider and a tracking/registry system focuses referrals of a subset of the population to the primary care based behavioral health consultant/care manager. The primary care provider prescribes psychotropic medications using treatment algorithms. **Psychiatric consultation is structured to support both the primary care provider and the behavioral health consultant/care manager, with a focus on treatment planning for individuals who are not showing improvement.**

The role of the primary care based behavioral health consultant is to provide consultation to the primary care provider as well as to provide behavioral health triage and assessment, brief treatment services to the individual, referral to community and educational resources, **medication and symptom tracking, self management supports, and relapse planning.** Behavioral health clinical and support services may include individual or group services, cognitive behavioral therapy, psycho-education, brief substance abuse intervention, and limited case management. The behavioral health consultant should be competent in both mental health and substance abuse assessment and service planning. **The behavioral health consultant is connected to the specialty behavioral health system, and able to effectively support stepped care to specialty behavioral health services.**

In smaller primary care practices, the behavioral health consultant provides behavioral health services, including interventions focused on assisting individuals with management of their behavioral health and health issues, as well as care management tracking. In larger primary care practices, the behavioral health consultant may be supported by a paraprofessional who is delegated some of the care management tracking activities.

QUADRANT II

The Population: Moderate to high behavioral health and low to moderate physical health complexity/risk.

The Model: **Person Centered Healthcare Home: primary care capacity in a behavioral health setting, including medical nurse practitioner/primary care physician, wellness programming, screening for health status concerns, and stepped care to a full-scope healthcare home. Access to the array of specialty behavioral health services designed to support recovery.**

The Providers: The primary care physician assures the **full-scope healthcare home either through practicing on site or supervision of the nurse practitioner, consultation with behavioral health provider and stepped care.** Psychiatric consultation with the primary care provider may be an element in these complex behavioral health situations, but it is more likely that psychotropic medication management will be handled by the specialty behavioral health prescriber, in collaboration with the primary care physician. **Standard health screening (e.g., glucose, lipids, blood pressure, weight/BMI) and preventive services will be provided. Wellness programs (e.g., nutrition, smoking cessation, physical activities) are available as primary as well as secondary preventive interventions, incorporating recovery principles and peer leadership and support.**

The role of the specialty behavioral health clinician/case manager is to provide behavioral health assessment, arrange for or deliver specialty behavioral health services, assure case management related to housing and other community supports, assure that the individual has access to primary care (e.g., on site or other outside primary care provider), and create a collaborative primary care communication approach (e.g., e-mail, v-mail, face to face) that assures coordinated service planning. The behavioral health clinician should be competent in both MH and SA assessment and service planning.

Note that Quadrant II is where many public sector behavioral health consumers currently can be found receiving services. Specialty behavioral health clinical and support services will vary based upon state- and county-level planning and financing; some localities may encompass the full range of services offered by specialty behavioral health systems (see Box 1 on page 28)

Box 1: Full range of specialty behavioral health services

Specialty MH Services

- 24/7 crisis telephone
- Mobile crisis team
- Urgent care walk in clinic
- Crisis respite facilities
- Crisis residential facilities
- Crisis observation 23 hour beds
- Locked sub-acute residential
- Inpatient (voluntary and involuntary)
- Dual diagnosis inpatient
- Hospital discharge planning
- Partial hospitalization
- In-home stabilization
- Outreach to homeless shelters
- Outreach to jail/corrections
- Outreach to other special populations
- Individual/family treatment /counseling
- Group treatment/counseling
- Dual diagnosis treatment groups
- Multifamily groups
- Psychiatric evaluation/consultation
- Psychiatric prescribing/management
- Advice nurse (medication issues)
- Psychological testing
- Services for homebound frail or disabled
- Specialized services for older adults
- Brokerage case management
- 24/7 intensive home /community case management (PACT teams)
- School-based assessment and treatment
- Stabilization classroom

Supports for populations with serious mental illnesses/serious emotional disturbance

- Representative payee/financial services
- Time limited transitional groups
- Parent support groups
- Youth support groups
- Dual diagnosis education/support groups
- Caregiver/family support groups
- Youth after school normalizing activities
- Youth tutors/mentors
- Day treatment (adult, adolescent, child)
- Supported employment /supported education
- Transitional services for young adults
- Individual skill building /coaching
- Intensive peer support
- After school structured services
- Summer daily structure and support

Specialty SA Services

- Sobering sites
- Social detoxification/residential
- Outpatient medical detoxification
- Inpatient medical detoxification
- Pre-treatment groups
- Narcotic replacement treatment
- Intensive outpatient treatment
- Outpatient treatment
- Day treatment
- Aftercare/12 step groups

Residential Services

- Boarding homes
- Adult residential treatment
- Child/adolescent residential treatment
- Transitional housing
- Adult family homes
- Treatment foster care
- Low income housing models such as supportive housing (dedicated to behavioral health consumers)

QUADRANT III

The Population: Low to moderate behavioral health and moderate to high physical health complexity/risk.

The Model: **Person Centered Healthcare Home: a primary care team that includes a behavioral health consultant/care manager, psychiatric consultant, screening for behavioral health concerns, stepped care, and access to specialty medical/surgical consultation and care management.**

The Providers: In addition to the services described in Quadrant I, the **primary care provider collaborates with medical/surgical specialty providers and care managers** (e.g., diabetes, asthma) to manage the physical health concerns of the individual. Specialty healthcare and care management programs could also integrate behavioral health screening and the behavioral health consultant/care manager into a wide array of self management and rehabilitation programs, building on research findings regarding the frequency and impact of depression in cardiovascular or diabetes populations.

Depending on the setting, the behavioral health consultant may also (in addition to the services described in Quadrant I) provide health education and behavioral supports regarding lifestyle and chronic health conditions found in the general public (diabetes, asthma) or conditions found in at-risk populations (Hepatitis C, HIV). These population-based services, as articulated by Dyer, would include: patient education, activity planning, prompting, skill assessment, skill building, and mutual support.[41] In addition to these services, the behavioral health consultant might serve as a physician extender, supporting efficient use of physician time by problem solving with individuals trying to manage either acute or chronic health concerns or related medication adherence issues.

QUADRANT IV

The Population: Moderate to high behavioral health and moderate to high physical health complexity/risk.

The Model: **Person Centered Healthcare Home: primary care capacity in a behavioral health setting, including medical nurse practitioner/primary care physician, nurse care manager, wellness programming, screening/tracking for health status concerns, and stepped care to a full-scope healthcare home. Access to the array of specialty behavioral health services designed to support recovery and access to specialty medical/surgical consultation and care management.**

The Providers: In addition to the services described in Quadrant II, t**he primary care physician collaborates with medical/surgical specialty providers and external care man-**

agers to manage the physical health concerns of the individual. In some settings, behavioral health consultant/care manager services may also be integrated with specialty provider teams (for example, Kaiser has behavioral health consultants in OB/GYN programs, working with substance abusing pregnant women). **Nurse care management is added, along with focused goal setting and self management planning, to the standard health screening/ registry tracking (e.g., glucose, lipids, blood pressure, weight/BMI). Wellness programs (e.g., diabetes groups) are available as secondary and tertiary preventive interventions, incorporating recovery principles and peer leadership and support.**

The organization of collaborative care for this population will frequently be person-specific, developed by the team of care providers in collaboration with the individual. With the expansion of Medicaid disease management programs, there may be coordination with external care managers in addition to multiple healthcare providers—this may be the role of the nurse care manager or the specialty behavioral health clinician/case manager as the team defines specific roles and responsibilities. The nurse care manager, behavioral health clinician/case manager, and external care manager should assure they are not duplicating tasks, but working together to support the needs of the individual. A specific protocol should be adopted that defines the methods and frequency of communication among all providers/ team members.

Section 5: Policy and Practice Implementation Issues

Organizations that have worked on integrating care between primary care and behavioral health practitioners have come to understand the significantly different cultures, languages, and processes that primary care and behavioral health clinicians bring to collaborative efforts. Those who write and lecture on integrated care routinely list these differences as one of the barriers to successful collaboration. Those who train behavioral health practitioners for primary care roles focus a portion of their curriculum on the topic of cultures[42]. This awareness has emerged while trying to promote behavioral health in primary care and there is every reason to expect that, as organizations bring primary care into behavioral health settings, similar issues will emerge. The success of person-centered healthcare homes will depend on bridging these cultural differences. This is a policy and practice leadership challenge, at every level—team, clinic, community, state, and national. **To move person-centered healthcare homes forward will require thoughtful, deliberate and adaptive leadership at every level, across clinical disciplines and across the sectors that currently segment how people are served—how the delivery of their care is organized, how communication among providers occurs and how care is reimbursed.**

These divided sectors result in barriers when integrating primary care into behavioral health and integrating behavioral health into primary care. Many of the barriers have been described in the literature on integration in Quadrants I and III, and appear to be equally applicable to integration in Quadrants II and IV.

1. **Financing methods—**there has been a growing dialogue about the barriers to financing behavioral health in primary care.[43,44] For example, care managers/behavioral health consultants and psychiatric consultation in primary care have not been reimbursable, despite their prominence in the researched models. A recent exception to this is the DIAMOND Project in Minnesota, in which primary care practices participating in the project (with trained care managers, registries/tracking, and psychiatric consultants) are being reimbursed a monthly care management fee (case rate); this has been called "the first depression treatment program in the nation to integrate a collaborative care model with an effective, sustainable reimbursement structure".[45]

   Barriers to financing behavioral health in primary care have reappeared as organizations initiate primary care in behavioral health. For example, the successful examples of nurse practitioners/nurse care managers in behavioral health settings have not been sustainable under current financing mechanisms and have had to be supported with grants and specialized fundraising. Another example is found in the 2005 National Correct Coding Initiative Policy Manual for Medicare Services, Chapter XI, Evaluation and Management Services, C; Psychiatric Services, which contains the following language: When medical services, other than psychiatric services, are provided in addition to psychiatric services, separate evaluation and management codes cannot be reported. The psychiatric service includes the evaluation and management services provided according to CMS policy. This is a variation on the prohibition on billing same day services for behavioral health and primary care. It has recently been clarified that this is not federal policy.[46] The prohibition is likely either explicit state/commercial payer policy or unknowingly embedded in claims processing systems.

   Historically, the healthcare system and the behavioral health system have operated in completely different service delivery, funding and reimbursement sectors. Most claims adjudication systems match the service code to a provider type and a service setting—a mismatch on any one of these can cause the claim to be denied. Integrated care requires a new configuration of these matches, or perhaps a new payment method, such as the case rate used in the DIAMOND project or proposed for patient-centered medical homes.

2. **Policy and regulation—**policies at both the federal and state levels are seldom consciously structured to encourage and support collaborative practice; instead they frequently act as barriers. This is particularly true of state regulations regarding behavioral health treatment planning and service documentation, which result in lengthy and time consuming paper and work processes that are not a good match to the pace of primary care, in either the behavioral health or the primary care setting.

   Despite the recent documentation of the chronic health conditions and early death experienced by people living with serious mental illnesses, people living with serious

mental illnesses are not designated as a health disparities population. The Office of Minority Health and Health Disparities of the Centers for Disease Control (CDC) has the following mission: "To accelerate CDC's health impact in the U.S. population and to eliminate health disparities for vulnerable populations as defined by race/ethnicity, socio-economic status, geography, gender, age, disability status, risk status related to sex and gender, and among other populations identified to be at-risk for health disparities." Specifically in regard to disability, "the CDC, through its various operating units, for example the National Center for Birth Defects and Developmental Disabilities and the National Center for Injury Prevention and Control aims to promote the health of people with disabilities, prevent secondary conditions, and eliminate disparities between people with and without disabilities in the U.S. population."[47] It pursues this mission through a variety of technical assistance and grant opportunities available to organizations working to address health disparities. These are currently unavailable to those working to improve the health of people living with serious mental illnesses.

A related issue is the lack of systematic capacity at the national level to measure morbidity and mortality among consumers of behavioral health services and align this surveillance data with data reflecting the general population. Current evidence relating to the health status and premature death of people with serious mental illnesses comes from research studies. NASMHPD will soon release a paper with recommendations regarding health indicators that should be tracked in the mental health system on an ongoing basis.[48]

3. **Workforce—** skills needed to work on an integrated team are not generally part of academic training for clinicians, and as noted above, the success of person-centered healthcare homes will depend on bridging the cultural differences between primary care and behavioral health practitioners—an issue that requires attention in clinical training programs at all levels.

   There is a shortage of both primary care[49] and behavioral health practitioners to work in either setting. One stated intent of the patient-centered medical home initiative is to make the financing of primary care more attractive, in order to address the dwindling number of physicians choosing primary care. To adequately address the needs of people with serious mental illnesses and people with chronic health conditions, more primary care and behavioral health practitioners will be required. Telemedicine initiatives will also play a role in addressing workforce issues, especially in rural communities.

4. **Clinical information sharing—**HIPAA is perceived as (but isn't necessarily) a barrier to communication—sharing information for the purposes of care collaboration is a permitted use under HIPAA, with the exceptions of HIV status and receipt of substance abuse treatment.

The evolving electronic health record (EHR) systems for behavioral health and primary care do not easily intersect, and some of the EHRs being developed for use in behavioral health settings do not have data fields for health status and the healthcare services provided to people with serious mental illnesses. An emerging opportunity is the development of personal health records (PHRs) to support individuals managing chronic medical conditions, and application of that technology to support individuals living with serious mental illness.

5. **Physical facilities—**integrated models of care rely on teams working in close physical proximity, difficult to accomplish in facilities which are frequently fully occupied when an integration initiative begins. The requirements for developing primary care in behavioral health settings are space and capital intensive, necessitating constructing and equipping exam rooms with examination tables and the type of equipment that primary care practitioners expect to have easily accessible in the course of a physical examination.

6. **Research—**"given the enormous rate of activity on the primary care/behavioral health interface, it is critical that services research be informed by, and help inform, these evolving models. Researchers must be willing to move from the more traditional "top down" models of intervention design to partnerships with administrators and community leaders to develop and evaluate these evolving models. In order to ensure timeliness and relevance, these evaluations will need to use innovative approaches beyond those used in traditional randomized trials, and include careful cost analyses to understand if, and how, these models can be sustained in real world settings.[50]

   Specifically, research on evolving models for unified programs and partnership approaches to the person-centered healthcare home would add to our collective knowledge. Berenson and colleagues are part of a research effort that will eventually identify the incremental costs associated with adopting the patient-centered medical home, as defined in the NCQA standards. Their recently released study, based on a literature review and site visits to a variety of primary care practices, provides a detailed overview of the problems the medical home might address, the evolution of the concept, and the challenges to adoption.[51] They discuss the divergent views around what the medical home should emphasize and be rewarded for (which will need to be resolved in order to conduct a cost analysis). In this acknowledgement that definitional work remains to be done, the opportunity exists to pilot the person-centered healthcare home as described in this paper and gather data on the costs and potential cost offsets of this model of care.

   As the application of care management to specific chronic illnesses has grown, what has become obvious is that individuals who need care management frequently have multiple co-morbid conditions and that care management cannot be effectively

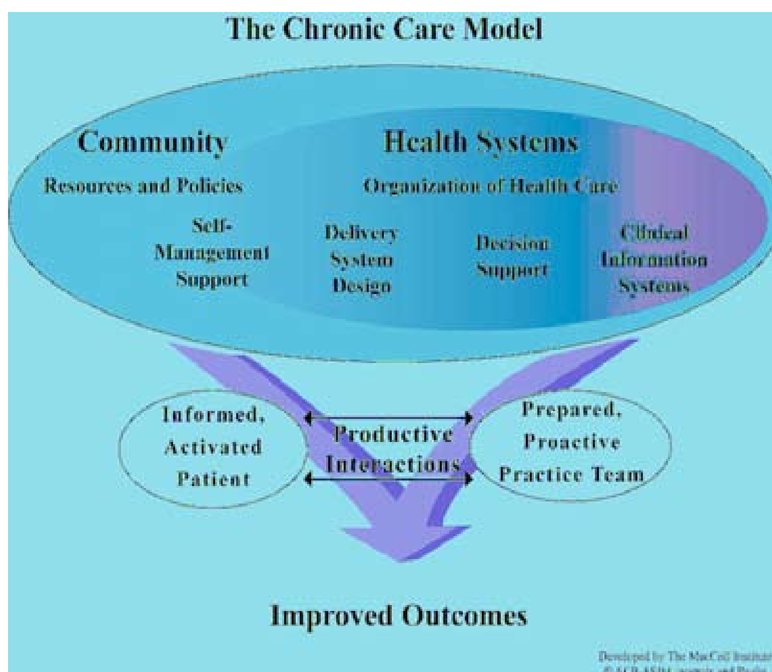
accomplished by multiple, disease-specific care managers.[52] Multiple co-morbidities require care managers who are competent to support the whole person. However, to date, there is minimal evidence describing the number of conditions that can be successfully addressed by a single care manager. There is a need for research into the care management models and methods for effectively serving individuals with multiple co-morbidities.

This paper is intended to be used in national, state and local level dialogues regarding patient-centered medical homes—to bring the relevance of behavioral health into those dialogues and to support the resolution of the barriers described above. **The promise of the patient-centered medical home can only be fully realized if it becomes the person-centered healthcare home, with behavioral health capacity fully embedded in primary care teams and primary care capacity embedded in behavioral health teams.**

Appendix A: The Chronic Care Model

The Chronic Care Model has influenced the development of the patient-centered medical home and is foundational to the Health Disparities Collaborative. **The Chronic Care Model** (CCM) was developed by Ed Wagner and his colleagues under the **Improving Chronic Illness Care Program** (a Robert Wood Johnson [RWJ] funded project). The CCM is in use in a variety of healthcare settings, providing a structured approach for clinical improvement. http://www.improvingchroniccare.org/change/index.html

The CCM has been used to develop specific approaches for serving individuals with diabetes, cardiovascular disease, asthma, depression and other conditions in a project sponsored by the Bureau of Primary Health Care (BPHC) with the Institute for Healthcare Improvement (IHI), a not-for-profit organization driving the improvement of health by advancing the quality and value of health care. **The Health Disparities Collaborative**[53] represents a multi-year national initiative to implement models of patient care and change management in order to transform the primary care settings for underserved populations.



The organizing principles for each of the Health Disparities Collaborative Manuals follows the key elements of the CCM; many of the components apply to any disease entity (e.g., diabetes, asthma, depression), while other specific tasks and tools are unique to the specific disease entity. For example, the key change concepts found in the Depression Collaborative manual include:

Organization of Health Care/Leadership

- Make sure senior leaders and staff visibly support and promote the effort to improve chronic care
- Make improving chronic care a part of the organization's vision, mission, goals, performance improvement, and business plan
- Make sure senior leaders actively support the improvement effort by removing barriers and providing necessary resources
- Assign day-to-day leadership for continued clinical improvement
- Integrate collaborative models into the quality improvement program

Decision Support

- Embed evidence-based guidelines in the care delivery system
- Establish linkages with key specialists to assure that primary care providers have access to expert support
- Provide skill oriented interactive training programs for all staff in support of chronic illness improvement
- Educate patients about guidelines

Delivery System Design

- Identify depressed patients during visits for other purposes
- Use the registry to proactively review care and plan visits
- Assign roles, duties and tasks for planned visits to a multidisciplinary care team. Use cross training to expand staff capability
- Use planned visits in individual and group settings
- Make designated staff responsible for follow-up by various methods, including outreach workers, telephone calls and home visits

Clinical Information System

- Establish a registry
- Develop processes for use of the registry, including designating personnel to enter data, assure data integrity and maintain the registry
- Use the registry to generate reminders and care planning tools for individual patients
- Use the registry to provide feedback to care team and leaders

Self Management

- Use depression self management tools that are based on evidence of effectiveness
- Set and document self management goals collaboratively with patients

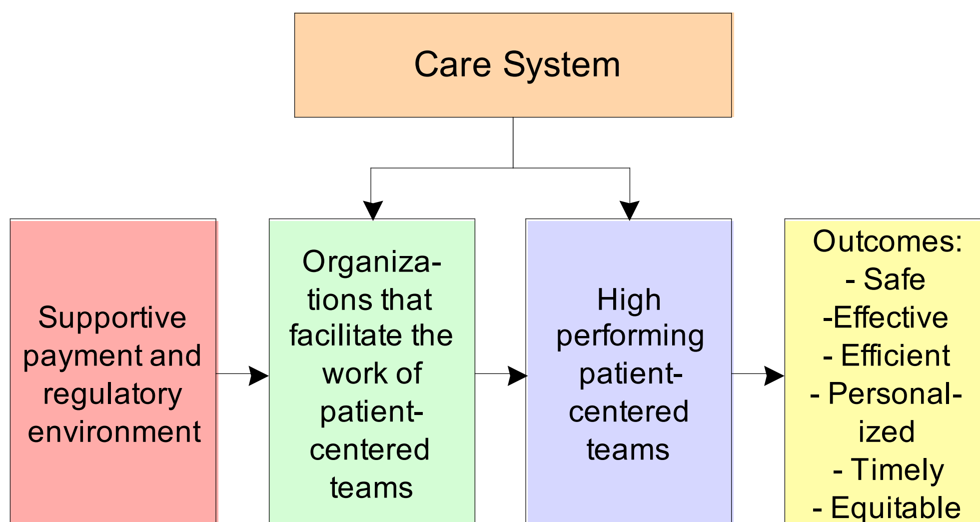
- Train providers and other key staff on how to help patients with self management goals
- Follow up and monitor self management goals
- Use group visits to support self management

Community
- Establish linkages with organizations to develop support programs and policies
- Link to community resources for defrayed medication costs, education and materials
- Encourage participation in community education classes and support groups
- Raise community awareness through networking, outreach and education
- Provide a list of community resources to patients, families and staff[54]

Appendix B: The Quality Chasm Aims and Rules

In Crossing the Quality Chasm: A New Health System for the 21st Century the IOM described the components of an effective healthcare system, including the need to have a supportive payment and regulatory environment that supports provider organizations in developing and maintaining high performing patient-centered teams that will result in the outcomes, or aims of the system. This framework is illustrated below.

Components of an Effective Healthcare System



Six Aims for Improving the Healthcare System

1. Health care must be **safe**. This means much more than the ancient maxim "First, do no harm," which makes it the individual caregiver's responsibility to somehow try extra hard to be more careful (a requirement modern human factors theory has shown to be unproductive). Instead, the aim means that safety must be a property of the system. No one should ever be harmed by health care again.

2. Health care must be **effective**. It should match science, with neither underuse nor overuse of the best available techniques—every elderly heart patient who would benefit from beta-blockers should get them, and no child with a simple ear infection should get advanced antibiotics.
3. Health care should be **patient-centered**. The individual patient's culture, social context, and specific needs deserve respect, and the patient should play an active role in making decisions about her own care. That concept is especially vital today, as more people require chronic rather than acute care.
4. Care should be **timely**. Unintended waiting that doesn't provide information or time to heal is a system defect. Prompt attention benefits both the patient and the caregiver.
5. The health care system should be **efficient**, constantly seeking to reduce the waste—and hence the cost—of supplies, equipment, space, capital, ideas, time, and opportunities.
6. Health care should be **equitable**. Race, ethnicity, gender, and income should not prevent anyone in the world from receiving high-quality care. We need advances in health care delivery to match the advances in medical science so the benefits of that science may reach everyone equally.

Ten Rules to Guide the Redesign of Health Care

1. **Care based on continuous healing relationships**. Patients should receive care whenever they need it and in many forms, not just face-to-face visits. This rule implies that the health care system should be responsive at all times (24 hours a day, every day) and that access to care should be provided over the Internet, by telephone, and by other means in addition to face-to-face visits.
2. **Customization based on patient needs and values**. The system of care should be designed to meet the most common types of needs, but have the capability to respond to individual patient choices and preferences.
3. **The patient as the source of control**. Patients should be given the necessary information and the opportunity to exercise the degree of control they choose over health care decisions that affect them. The health system should be able to accommodate differences in patient preferences and encourage shared decision making.
4. **Shared knowledge and the free flow of information**. Patients should have unfettered access to their own medical information and to clinical knowledge. Clinicians and patients should communicate effectively and share information.
5. **Evidence-based decision making**. Patients should receive care based on the best available scientific knowledge. Care should not vary illogically from clinician to clinician or from place to place.
6. **Safety as a system property**. Patients should be safe from injury caused by the care system. Reducing risk and ensuring safety require greater attention to systems that help prevent and mitigate errors.
7. **The need for transparency**. The health care system should make information available to patients and their families that allows them to make informed decisions

when selecting a health plan, hospital, or clinical practice, or choosing among alternative treatments. This should include information describing the system's performance on safety, evidence-based practice, and patient satisfaction.

8. **Anticipation of needs**. The health system should anticipate patient needs, rather than simply reacting to events.
9. **Continuous decrease in waste**. The health system should not waste resources or patient time.
10. **Cooperation among clinicians**. Clinicians and institutions should actively collaborate and communicate to ensure an appropriate exchange of information and coordination of care.

Appendix C: Joint Principles of the Patient-Centered Medical Home

- Personal physician—each patient has an ongoing relationship with a personal physician trained to provide first contact, continuous and comprehensive care.
- Physician directed medical practice—the personal physician leads a team of individuals at the practice level who collectively take responsibility for the ongoing care of patients.
- Whole person orientation—the personal physician is responsible for providing for all the patient's healthcare needs or taking responsibility for appropriately arranging care with other qualified professionals. This includes care for all stages of life; acute care, chronic care, preventive services and end of life care.
- Care is coordinated and/or integrated across all elements of the complex healthcare system (e.g., subspecialty care, hospitals, home health agencies, nursing homes) and the patient's community (e.g., family, public and private community based services). Care is facilitated by registries, information technology, health information exchange and other means to assure that patients get the indicated care when and where they need and want it in a culturally and linguistically appropriate manner.
- Quality and safety are hallmarks of the medical home:
  - Practices advocate for their patients to support the attainment of optimal, patient-centered outcomes that are defined by a care planning process driven by a compassionate, robust partnership between physicians, patients and the patient's family.
  - Evidence-based medicine and clinical decision-support tools guide decision making.
  - Physicians in the practice accept accountability for continuous quality improvement through voluntary engagement in performance measurement and improvement.

  - o Patients actively participate in decision-making and feedback is sought to ensure patients' expectations are being met.
  - o Information technology is utilized appropriately to support optimal patient care, performance measurement, patient education, and enhanced communication.
  - o Practices go through a voluntary recognition process by an appropriate non-governmental entity to demonstrate that they have the capabilities to provide patient centered services consistent with the medical home model.
  - o Patients and families participate in quality improvement activities at the practice level.
- Enhanced access to care is available through systems such as open scheduling, expanded hours and new options for communication between patients, their personal physician and practice staff.
- Payment appropriately recognizes the added value provided to patients who have a patient-centered medical home. The payment structure should be based on the following framework:
  - o It should reflect the value of physician and non-physician staff patient-centered care management work that falls outside of the face-to-face visit.
  - o It should pay for services associated with coordination of care both within a given practice and between consultants, ancillary providers and community resources.
  - o It should support adoption and use of health information technology for quality improvement.
  - o It should support provision of enhanced communication access such as secure e-mail and telephone consultation.
  - o It should recognize the value of physician work associated with remote monitoring of clinical data using technology.
  - o It should allow for separate fee-for-service payments for face-to-face visits. (Payments for care management services that fall outside of the face-to-face visit, as described above, should not result in a reduction in the payments for face-to-face visits).
  - o It should recognize case mix differences in the patient population being treated within the practice.
  - o It should allow physicians to share in savings from reduced hospitalizations associated with physician-guided care management in the office setting.
  - o It should allow for additional payments for achieving measurable and continuous quality improvements.

Appendix D: National Committee for Quality Assurance

See table on page 45

PPC-PCMH Content and Scoring

Standard 1: Access and Communication	Pts
A. Has written standards for patient access and patient communication**	**4**
B. Uses data to show it meets its standards for patient access and communication**	**5**
	9

Standard 2: Patient Tracking and Registry Functions	Pts
A. Uses data system for basic patient information (mostly non-clinical data)	2
B. Has clinical data system with clinical data in searchable data fields	3
C. Uses the clinical data system	3
D. Uses paper or electronic-based charting tools to organize clinical information**	**6**
E. Uses data to identify important diagnoses and conditions in practice **	**4**
F. Generates lists of patients and reminds patients and clinicians of services needed (population management)	3
	21

Standard 3: Care Management	Pts
A. Adopts and implements evidence-based guidelines for three conditions **	**3**
B. Generates reminders about preventive services for clinicians	4
C. Uses non-physician staff to manage patient care	3
D. Conducts care management, including care plans, assessing progress, addressing barriers	5
E. Coordinates care//follow-up for patients who receive care in inpatient and outpatient facilities	5
	20

Standard 4: Patient Self-Management Support	Pts
A. Assesses language preference and other communication barriers	2
B. Actively supports patient self-management**	**4**
	6

Standard 5: Electronic Prescribing	Pts
A. Uses electronic system to write prescriptions	3
B. Has electronic prescription writer with safety checks	3
C. Has electronic prescription writer with cost checks	2
	8

Standard 6: Test Tracking	Pts
A. Tracks tests and identifies abnormal results systematically**	**7**
B. Uses electronic systems to order and retrieve tests and flag duplicate tests	6
	13

Standard 7: Referral Tracking	PT
A. Tracks referrals using paper-based or electronic system**	**4**
	4

Standard 8: Performance Reporting and Improvement	Pts
A. Measures clinical and/or service performance by physician or across the practice**	**3**
B. Survey of patients' care experience	3
C. Reports performance across the practice or by physician **	**3**
D. Sets goals and takes action to improve performance	3
E. Produces reports using standardized measures	2
F. Transmits reports with standardized measures electronically to external entities	1
	15

Standard 9: Advanced Electronic Communications	Pts
A. Availability of Interactive Website	1
B. Electronic Patient Identification	2
C. Electronic Care Management Support	1
	4

**Must Pass Elements

Appendix E: The IMPACT Model

The IMPACT model was developed and tested by a group of primary care and mental health experts with funding from the John A. Hartford Foundation, the California Health-Care Foundation, the Hogg Foundation, and the Robert Wood Johnson Foundation. It was informed by work on the Chronic Care model developed by Wagner and colleagues at Group Health Cooperative and several initiatives such as the Partners in Care study at UCLA / RAND and the MacArthur Foundation's initiative on depression in primary care (http://www.depression-primarycare.org/. The IMPACT model is now being used/studied for all age groups and many other mental health conditions found in primary care. http://impact-uw.org The five most essential elements of IMPACT are:

1. Collaborative care is the cornerstone of the IMPACT model and functions in two main ways:

- The individual's primary care physician works with a care manager/behavioral health consultant (behavioral health consultant) to develop and implement a treatment plan (medications and/or brief, evidence-based psychotherapy)
- Care manager/ behavioral health consultant and primary care provider consult with psychiatrist to change treatment plans if individuals do not improve

2. Care Manager/Behavioral Health Consultant:

This may be a nurse, social worker or psychologist and may be supported by a medical assistant or other paraprofessional. The care manager:

- Educates the individual about depression/other conditions
- Supports medication therapy prescribed by the individual's primary care provider if appropriate
- Coaches individuals in behavioral activation and pleasant events scheduling/self management plan
- Offers a brief (six-eight session) course of counseling, such as Problem-Solving Treatment in Primary Care
- Monitors symptoms for treatment response
- Completes a relapse prevention plan with each individual who has improved

3. Designated psychiatrist:

- Consults to the care manager/ behavioral health consultant and primary care physician on the care of individuals who do not respond to treatments as expected

4. Outcome measurement:

- IMPACT care managers measure depressive or other symptoms at the start of an individual's treatment and regularly thereafter, using a validated measurement tool (e.g., the PHQ-9)

5. Stepped care:

- Treatment is adjusted based on clinical outcomes and according to an evidence-based algorithm
- The aim is for a 50 percent reduction in depression symptoms within 10-12 weeks
- If the individual is not significantly improved at 10-12 weeks after the start of a treatment plan, the plan is changed. The change can be an increase in medication dosage, a change to a different medication, addition of psychotherapy, a combination of medication and psychotherapy, or other treatments suggested by the team psychiatrist.

Endnotes

[1] http://www.bu.edu/cpr/resources/wellness-summit/index.html
[2] http://www.improvingchroniccare.org/change/index.html
[3] http://www.healthdisparities.net/hdc/html/home.aspx
[4] Crossing the quality chasm: A new health system for the 21st century. Institute of Medicine, 2001.
[5] http://www.patientcenteredprimarycare.org
[6] Barr, M. The need to test the patient-centered medical home. Journal of the American Medical Association, August 20, 2008, Vol.300.No.7.
[7] Freudenheim, M. Trying to save by increasing doctor's fees. The New York Times. July 21, 2008.
[8] Goroll A. et al. Fundamental reform of payment for adult primary care: Comprehensive payment for comprehensive care. Journal of General Internal medicine, March 2007.
[9] Healthcare payment reform: From principles to action. Healthcare Financial Management Association, June 2008.
[10] http://www.patientcenteredprimarycare.org
[11] http://www.ncqa.org
[12] www.cmwf.org
[13] Cole, S, Davis, C. Self-management support: From basic to complex. Health Disparities Collaborative Congress, September 2004. see also http://www.healthdisparities.net/hdc/html/home.aspx
[14] Vannoy, S. University of Washington. Personal communication 2008.
[15] Improving the quality of health care for mental and substance-use conditions, Institute of Medicine, 2005
[16] http://impact-uw.org/about/research.html
[17] Freeman, E, Yoe, J. The Poor health status of consumers of mental healthcare: Behavioral disorders and chronic disease, Presentation to NASMHPD Medical Directors Work Group, May 2006.
[18] Parks J, et al. Morbidity and mortality in people with serious mental illness. National Association of State Mental Health Program Directors, 2006. www.nasmhpd.org
[19] http://www.bu.edu/cpr/resources/wellness-summit/index.html
[20] National consensus statement on mental health recovery. Substance Abuse and Mental Health Services Administration, Center for Mental Health Services. February 2006
[21] Druss, B et al. Integrated medical care for patients with serious psychiatric illness. Archives of General Psychiatry, Vol 58, September 2001.
[22] Druss, B et al. Integrated medical care for patients with serious psychiatric illness. Archives of General Psychiatry, Vol 58, September 2001.

[23] Parks, J et al. Morbidity and mortality in people with serious mental illness. National Association of State Mental Health Program Directors, 2006. www.nasmhpd.org
[24] Consensus development conference on antipsychotic drugs and obesity and diabetes, American Diabetes Association, American Psychiatric Association, American Association of Clinical Endocrinologists, and the North American Association for the Study of Obesity, 2004.
[25] Wilson, K. A CMHC's transformation into an FQHC. Crider Health Center. Presented to National Council for Community Behavioral Healthcare conference, May 2008.
[26] http://www.cherokeehealth.com
[27] Freeman, D. Getting started with collaborative care: Working all aspects of the four quadrant model. Presented to National Council for Community Behavioral Healthcare conference, May 2008.
[28] Get it together: How to integrate physical and mental health care for people with serious mental disorders. The Bazelon Center for Mental Health Law. June 2004.
[29] Gilbody, S et al. Educational and organizational interventions to improve the management of depression in primary care: a systematic review. JAMA. 2003; 289:3145-3151.
[30] Mays, K. Cherokee Health Systems. Personal communication 2008.
[31] Boardman, J. Healthcare access and integration for adults with serious mental illness: five years later. Health & Education Services, Inc. Presented to National Council for Community Behavioral Healthcare conference, May 2008.
[32] Druss, B. Addressing the primary medical care of mental health consumers. Emory University. Presented to National Council for Community Behavioral Healthcare conference, May, 2008.
[33] Bartels, S. Stemming an epidemic of early disability and death: integrated health care and rehabilitation for adults with serious mental illness. Dartmouth Centers for Health and Aging. Presented to National Council for Community Behavioral Healthcare conference, May 2008.
[34] http://www.ahcpr.gov/clinic/uspstfix.htm
[35] Druss, B. Addressing the primary medical care of mental health consumers. Emory University. Presented to National Council for Community Behavioral Healthcare conference, May, 2008.
[36] Bartels, S. Stemming an epidemic of early disability and death: integrated health care and rehabilitation for adults with serious mental illness. Dartmouth Centers for Health and Aging. Presented to National Council for Community Behavioral Healthcare conference, May 2008.
[37] Minkoff, K. Dual diagnosis: an integrated model for the treatment of people with co-occurring psychiatric and substance disorders in managed care systems. Presented to National Council for Community Behavioral Healthcare conference, March 2002.
[38] Druss, B, Mauer, B. Making the case for collaboration: improving care on the primary care/behavioral health interface. Manuscript in review. Based on paper presented at presented at the 2007 American College of Mental Health Administration Summit.
[39] http://www.thenationalcouncil.org/cs/business_practice_areas/primary_care
[40] Mauer, B, Reynolds, K. Getting started with collaborative care: Working all aspects of the four quadrant model. Presented to National Council for Community Behavioral Healthcare conference, May 2008.

[41] Dyer, R. Integrating primary and behavioral healthcare services. Criterion Health, Inc. Presented to National Council for Community Behavioral Healthcare conference, March 2003.
[42] http://www.integratedprimarycare.com/Certificate%20Program_Email.htm
[43] Mauch, D, Kautz, C., Smith, S. Reimbursement of mental health services in primary care settings. Substance Abuse and Mental Health Services Administration, Center for Mental Health Services. February 2008.
[44] Mauer, B. Finance, policy, and integration of services. The National Council for Community Behavioral Healthcare. July 2006. http://www.thenationalcouncil.org/cs/business_practice_areas/primary_care
[45] Groundbreaking depression initiative expands to 10 Minnesota clinics. Mental Health Weekly Vol. 18, No.22, June 2, 2008.
[46] Mauch, D, Kautz, C, Smith, S. Reimbursement of mental health services in primary care settings. Substance Abuse and Mental Health Services Administration, Center for Mental Health Services. February 2008.
[47] http://www.cdc.gov/omhd/Populations/Disability/Disability.htm
[48] www.nasmhpd.org
[49] Access transformed: Building a primary care workforce for the 21st century. National Association of Community Health Centers. Robert Graham Center, The George Washington University School of Public Health and Health Services. August 2008.
[50] Mauer, B, Druss B. Mind And body reunited: Improving care at the behavioral and primary healthcare interface. Manuscript in review. Based on paper presented at presented at the 2007 American College of Mental Health Administration Summit.
[51] Berenson, R et al. A house is not a home: Keeping patients at the center of practice redesign. Health Affairs. Sept-Oct 2008, Vol.27, Number 5.
[52] Kronick, R et al. The faces of Medicaid II: Recognizing the care needs of people with multiple chronic conditions. Center for Health Care Strategies, October 2007. http://www.chcs.org/publications3960/publications_show.htm?doc_id=540806
[53] http://www.healthdisparities.net
[54] Ibid