

## **The Collaborative Care Model: An Approach for Integrating Physical and Mental Health Care in Medicaid Health Homes**

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### **Executive Summary**

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- Depression and other common mental disorders are common, disabling, and associated with high health care costs and substantial losses in productivity, yet only about 25 percent of patients with these disorders receive effective care.
- Only 20 percent of adult patients with mental health disorders are seen by mental health specialists and many prefer and receive treatment in primary care settings.
- Individuals with serious and persistent mental illnesses are more likely to be seen by specialty mental health providers, but they have limited access to effective medical care and high mortality rates, underscoring the need for better connections across primary care and mental health.
- The collaborative care model is an evidence-based approach for integrating physical and behavioral health services that can be implemented within a primary care-based Medicaid health home model, among other settings.
- Collaborative care includes: (1) care coordination and care management; (2) regular/proactive monitoring and treatment to target using validated clinical rating scales; and (3) regular, systematic psychiatric caseload reviews and consultation for patients who do not show clinical improvement.
- More than 70 randomized controlled trials have shown collaborative care for common mental disorders such as depression to be more effective and cost-effective than usual care, across diverse practice settings and patient populations. Collaborative care programs have been implemented by large health care organizations and health plans in both commercially insured and low income/safety-net populations. Traditional fee-for-service reimbursement programs have been a barrier to widespread implementation of collaborative care, but new reimbursement models using capitated, case-rate payments, or pay-for-performance mechanisms may provide opportunities to expand its use.
- Implementation of evidence-based collaborative care in Medicaid – and in integrated care programs for individuals dually eligible for Medicare and Medicaid – could substantially improve medical and mental health outcomes and functioning, as well as reduce health care costs.

### **IN BRIEF**

The integration of physical and mental health care is an important aspect of the Medicaid health home model. Collaborative care programs are one approach to integration in which primary care providers, care managers, and psychiatric consultants work together to provide care and monitor patients' progress. These programs have been shown to be both clinically-effective and cost-effective for a variety of mental health conditions, in a variety of settings, using several different payment mechanisms. This brief highlights the collaborative care model as one approach to implementing integrated care under the Medicaid health homes authority.

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Health care costs for Medicaid beneficiaries with major depression and a chronic medical condition are twice as high as those for beneficiaries without depression.

States are continuously looking for evidence-based approaches to improving the health care of high-need, high-cost Medicaid populations. Strategies to improve the integration of physical and behavioral health care are essential for such individuals with complex needs. Not only are effective integrated approaches needed, but also innovative payment models to cover the costs of care.

Health homes are one mechanism that can be used both to integrate primary and mental health care and to pay for the essential components of enhanced care management and care coordination required for effective integration. Authorized by the Affordable Care Act of 2010 (ACA) section 2703, the Medicaid Health Home State Plan Option provides a mechanism to coordinate the primary, acute, behavioral, and long-term and social service needs of targeted beneficiaries. States can link Medicaid beneficiaries who have at least two chronic conditions, have one chronic condition and are at risk for another, or have a serious mental illness to a health home to coordinate that person's health care. Regardless of the conditions targeted by the health home, the associated providers must meet all federal and state qualifications to serve as health homes, and must deliver a defined set of services (as further delineated in the section Payment Models for Collaborative Care). Across these services, a key desired outcome of the health home model is improved integration of primary and behavioral health care delivery.

This brief highlights the collaborative care model as one approach to implementing integrated care under the health homes authority. Future briefs from the *Health Home Information Resource Center* will highlight other evidence-based or otherwise promising models worthy of consideration for promoting integrated care. Although the

model is flexible enough to support a variety of chronic conditions, the collaborative care model is more often utilized in a primary care-based approach than within the specialty mental health care delivery system.

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## Behavioral Health Services in Primary Care

Behavioral health problems such as depression, anxiety, alcohol or substance abuse are among the most common and disabling health conditions worldwide. They often co-occur with chronic medical diseases and can substantially worsen associated health outcomes.<sup>1</sup> Rates of depression have been estimated to be 20 percent in Medicaid populations and 23 percent in the population eligible for both Medicare and Medicaid.<sup>2</sup> When behavioral health problems are not effectively treated, they can impair self-care and adherence to medical and mental health treatments and they are associated with poor health outcomes and increased mortality. They are also associated with decreased work productivity<sup>3,4</sup> and substantial increases in overall health care costs. For example, Medicaid patients with major depression in addition to a chronic medical condition such as diabetes have more than twice the overall health care costs than those without depression.<sup>5</sup> Medicaid enrollees with comorbid mental conditions receive worse quality of care for medical conditions such as diabetes,<sup>6</sup> and have mortality rates nearly four times as high as those of the general population.<sup>7</sup>

Only 20 percent of adults with common mental disorders receive care from a mental health specialist in any given year<sup>8</sup> and primary care practices have long been recognized as the *de facto* location of care for most adults in the United States with common mental disorders such as depression.<sup>9,10</sup> Many patients prefer an integrated approach in which primary care and mental health

providers work together to address medical and behavioral health needs. Older adults in particular prefer treatment of mental disorders in primary care – and when they are referred to mental health specialists, no more than half complete such a referral.<sup>11</sup> Primary care providers are well aware of the substantial challenges related to treating patients with mental health problems in primary care and they report serious limitations in the support available from mental health specialists.<sup>12</sup> Patient-centered medical homes (PCMH) have been advocated as ways to provide better health care to populations of patients at a lower cost, and effective medical homes should be able to address common mental disorders such as depression.

### Quality of Care for Common Mental Disorders

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Effective pharmacological and non-pharmacological treatments exist for common mental health problems, including for depression and anxiety disorders. At the same time, based on 2001-2003 data, only around 40 percent of Americans with a diagnosable mental illness received any specific mental health treatment in the prior year, and only around one-third of those – therefore, approximately one in seven overall – received treatment that could be characterized as minimally adequate based on practice guidelines.<sup>13,14</sup>

Over 3.5 million Medicaid beneficiaries across the United States receive prescriptions for antidepressants, representing 8.2 percent of the entire Medicaid population. Of these, nearly 308,000 are individuals eligible for both Medicare and Medicaid (known as Medicare-Medicaid enrollees or dual eligibles).<sup>15</sup> Data on Medicare-Medicaid enrollees in Washington State suggest that 44 percent of those younger than 65 years and 27 percent of older Medicare-Medicaid enrollees receive prescriptions for antidepressant medications in any given year.<sup>16</sup> But many of these

patients do not receive these medications in sufficient doses or for a sufficient duration; while others continue to use medications even if they are not effective for them, rather than having their treatment adjusted, due to lack of regular monitoring and clinical inertia. As a result, as few as 20 percent of patients started on antidepressant medications in usual primary care show substantial clinical improvements.<sup>17,18</sup> Many patients referred to psychotherapy receive an insufficient number of visits and/or ineffective forms of psychotherapy, so that treatment response for this type of treatment is also as low as 20 percent under usual care.<sup>19</sup> Finally, poor quality of medical care in patients with mental illness may explain a significant portion of their excess mortality.<sup>20</sup>

### Efforts to Improve Care for Mental Disorders in Primary Care

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Efforts to improve the treatment of common mental disorders in primary care initially focused on screening for common mental disorders, education of primary care providers, development of treatment guidelines, and referral to mental health specialty care. These approaches – alone and in combination – have not been found to improve patient outcomes, although they may be necessary components of effective interventions.<sup>21</sup> For people with serious mental disorders treated in public mental health settings, early initiatives similarly sought to improve rates of screening for common medical problems such as diabetes, high cholesterol, and elevated blood pressure; however, many providers that screened for these conditions did not have the capacity to follow up with treatment for patients who screened positive.<sup>22</sup>

Another approach to improve care for patients with behavioral health

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Collaborative care teams include a primary care provider, care management staff, and a psychiatric consultant.

problems is to co-locate mental health specialists within primary care clinics or primary care providers onsite at a community mental health facility. Having a mental health or primary care professional available can improve access to mental health services, but co-location alone has also not been found to improve patient outcomes at a population level.<sup>23</sup>

Another strategy that has been used for Medicaid patients with depression and other chronic medical conditions is the use of telephonic disease management programs in which nurses from a centralized call center attempt to support treatment provided in primary care. There have now been several large studies of such disease management programs, and they have generally not been shown to improve disease outcomes or to reduce health care costs.<sup>24,25</sup>

### Collaborative Care: An Evidence-Based Solution

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Over the past 15 years, more than 70 randomized controlled trials have established a robust evidence-base for an approach called “

collaborative care.”<sup>26-28</sup> In such programs, care is provided by a collaborative team, including:

- The **primary care provider** (PCP), usually a family physician, internist, nurse practitioner, or physician assistant.
- **Care management staff**, such as a nurse, clinical social worker, or psychologist, who is based in primary care and trained to provide evidence-based care coordination, brief behavioral interventions, and to support the treatments such as medications initiated by the PCP. In some implementations of collaborative care, this staff also provides evidence-based, brief/structured psychotherapy,

such as cognitive behavioral therapy.

- A **psychiatric consultant**, who advises the primary care treatment team with a focus on patients who present diagnostic challenges or who are not showing clinical improvements. Such consultation can be provided in person or through the use of telemedicine (telephonic or televideo consultation).

In terms of the clinical approach, collaborative care programs follow the principles of measurement-based care,<sup>29</sup> treatment-to-target, and stepped care,<sup>30</sup> and other aspects of the chronic illness care model proposed by Wagner and colleagues.<sup>31</sup> Concretely, in collaborative care, each patient’s progress is closely tracked using validated clinical rating scales (e.g., PHQ-9 for depression)<sup>32</sup> – analogous to how patients with diabetes are monitored via HbA1c laboratory tests. Treatment is systematically adjusted – stepped up – if patients are not improving as expected. Initial adjustments can be made by the primary care treatment team, with input from the psychiatric consultant. Patients who continue not to respond to treatment or have an acute crisis are referred to mental health specialty care, as are patients who seek such referral. However, in practice, only a relatively small fraction of patients in collaborative care programs request or are otherwise referred to specialty care. Overall, such systematic treatment to target can overcome the clinical inertia that is often responsible for ineffective treatments of common mental disorders in primary care.<sup>33</sup>

Trials of collaborative care have been conducted in diverse health care settings, including network and staff model health systems, and private and public providers; with different financing mechanisms, including fee-for-service and capitation; different practice sizes; and different patient

populations, including both insured and uninsured/safety-net populations. Of note, several studies have demonstrated that collaborative care programs are not only highly effective for safety net patients and patients from ethnic minority groups,<sup>34-39</sup> but they can, in fact, reduce health disparities observed in such populations.

Studies have also tested collaborative care interventions for different mental health conditions, including depression,<sup>40,41</sup> anxiety disorders, and more serious conditions such as bipolar disorder and schizophrenia.<sup>42,43</sup> Across this extensive literature, collaborative care has consistently demonstrated higher effectiveness than usual care.<sup>44-46</sup>

### **The IMPACT Collaborative Care Program**

The largest trial of collaborative care to date, the IMPACT study, included 1,801 adults age 60 and older with depression, in 18 primary care clinics in five states.<sup>47</sup> The trial included patients/sites with both fee-for-service and capitated Medicare and Medicaid coverage. In addition to depression, IMPACT patients also averaged 3.5 chronic medical disorders. IMPACT participants were randomly assigned to a collaborative care program or to usual care.

The IMPACT intervention enhanced the primary care practice by adding two new team members: a depression care manager; and a consulting psychiatrist. It also introduced two important clinical processes, systematic tracking of clinical outcomes and stepped care in which treatments are systematically adjusted with consultation from a psychiatrist if patients are not improving as expected. IMPACT participants were more than twice as likely as those in the usual care control group to experience a substantial improvement in their depression over 12 months.<sup>48</sup> They also had less physical pain,<sup>49</sup> better social and physical

functioning, and better overall quality of life than patients in care as usual. This collaborative care approach was strongly endorsed by patients and primary care providers.<sup>50</sup> More recent studies have demonstrated the effectiveness of the IMPACT program in depressed adolescents,<sup>51</sup> depressed cancer patients,<sup>52</sup> and diabetics,<sup>53</sup> including low-income Spanish speaking patients.<sup>54</sup> Finally, a recent literature review by Peikes and colleagues<sup>55</sup> identified the IMPACT collaborative care model as one of only a few studies demonstrating that PCMH models can, in fact, achieve the Triple Aim of improved health, improved quality of care, and reduced costs.<sup>56</sup>

### **Collaborative Care as Best Practice**

The collaborative care approach, which is used as a basis for IMPACT and other studies, has been recognized as an evidence-based practice by the Substance Abuse and Mental Health Services Administration and recommended as a best practice by the Surgeon General's Report on Mental Health,<sup>57</sup> the President's New Freedom Commission on Mental Health,<sup>58</sup> and a number of national organizations including the National Business Group on Health.<sup>59</sup> In a recent evidence-based practice report by the Agency for Healthcare Research and Quality that reviewed the existing literature on approaches to integration of mental health/substance abuse and primary care, the IMPACT program was profiled as "the study with the strongest results."<sup>60</sup>

### **Effects of Collaborative Care on Health Care Costs**

Depression has been shown to increase overall health care costs by 50-100 percent. This is true for adult patients generally; the increase in costs associated with depression are particularly large in patients with multiple chronic medical disorders.<sup>61-63</sup> Several studies have demonstrated

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Long-term analyses have demonstrated that \$1 spent on collaborative care saves \$6.50 in health care costs.

that collaborative care for depression is more cost-effective than usual care.<sup>64,65</sup>

Importantly, several evaluations have demonstrated that collaborative care is associated with cost savings. Long-term (four-year) cost analyses from the IMPACT study found that patients receiving the collaborative care intervention had substantially lower overall health care costs than those receiving usual care.<sup>66</sup> An initial investment in collaborative care of \$522 during Year 1 resulted in net cost savings of \$3,363 over Years 1-4. This corresponds to a return on investment (ROI) of \$6.50 per dollar spent, with average annual average savings of \$841.

The collaborative care intervention yielded net savings in every category of health care costs examined, including pharmacy, inpatient and outpatient medical, and mental health specialty care.<sup>67</sup>

The reported cost and savings estimates listed above used health care cost data across payers from 1999 through 2003. After adjusting for health care cost inflation and taking into account recent cost estimates from over 80 clinics implementing collaborative care in the Minnesota DIAMOND program, a program supported by six commercial payers in the state of Minnesota,<sup>68</sup> we estimate today's cost of implementing an effective, evidence-based collaborative care program to be approximately \$900 per program participant. This cost would be incurred in the first year – and mainly in the first six months – after diagnosis. Using published data adjusted for health care cost inflation, we estimate net savings of approximately \$5,200 per program participant over four years, so approximately \$1,300 per year.<sup>69</sup> Similar cost savings have been identified in collaborative care studies that included patients with depression and diabetes<sup>70</sup> and patients with severe anxiety (panic disorder),<sup>71</sup> as well as in

medical collaborative care programs for patients with serious mental illnesses.<sup>72</sup>

These findings from research studies are consistent with published data from large integrated health care systems, including Kaiser Permanente and Intermountain Healthcare. These systems, which function like mature accountable care organizations, have implemented collaborative care programs and realized substantial cost savings.<sup>73,74</sup>

Using the data on ROI described above, we estimate that implementation of collaborative care for the 20 percent of Medicaid members with diagnosed depression could save the Medicaid program approximately \$15 billion per year. This corresponds to savings in excess of two percent of total annual Medicaid spending.

### **Effect of Depression on Employment and Workforce Participation**

There are additional economic benefits from effective collaborative care. Depression substantially reduces productivity and effective workforce participation and lowers the chance that individuals who are unemployed will reenter the workforce.<sup>75,76</sup> Adults with depression have substantially lower personal income than those without depression.<sup>77</sup> Individuals who retire early due to depression face long-term financial disadvantages compared to people who are treated and able to remain employed.<sup>78</sup> Research shows that the systematic implementation of collaborative care programs for depression in primary care can reduce many of these negative economic effects of depression, resulting in improved personal income, employment,<sup>79,80</sup> and other workplace outcomes.<sup>81</sup> For Medicaid recipients, these findings suggest the potential for effective treatment to help enrollees successfully return to the workforce, resulting in net savings to Medicaid programs.

## Implementing Collaborative Care in Safety-Net Programs

Several large health care organizations have undertaken large-scale implementations of evidence-based collaborative care programs. In the State of Washington, the Mental Health Integration Program (MHIP), sponsored by the Community Health Plan of Washington and Seattle King County Public Health, has implemented collaborative care in a partnership with more than 100 community health centers and over 30 community mental health centers, for safety-net clients with medical and behavioral health needs.<sup>82</sup> The population served by this statewide program is a managed Medicaid population. In King County, the program serves additional safety-net populations including uninsured clients (funded through a county tax levy). In Oregon, CareOregon, a Medicaid managed care organization, has provided training and support to primary care clinics to implement a similar program of collaborative care to address common mental health problems among its members. Notably, both of these initiatives were implemented prior to the passage of the ACA, and thus prior to the availability of the ACA-authorized Medicaid health home option; however, they demonstrate the applicability of the model to safety-net providers and the patients they serve.

Implementing effective collaborative care programs requires substantial practice change, and such efforts can encounter a number of barriers such as lack of trained staff or the lack of effective disease management registries to support effective care management. Effective implementations of collaborative care vary in the staffing models used (e.g., different staff can be trained in providing crucial care management functions including nurses, licensed clinical social workers, or medical assistants supervised by a nurse). The AIMS Center at the

University of Washington recently convened a group of national experts to develop a consensus statement on core principles and specific functions that are required to implement effective collaborative care programs. The resulting implementation checklist, titled the “Patient-Centered Integrated Behavioral Health Care Principles & Tasks,” and a companion set of team-building tools are available online for organizations wishing to implement evidence-based collaborative care programs.<sup>83</sup> This consensus has also been used to support extension collaborative care programs to serve clients with more severe mental illness.<sup>84</sup>

### Payment Models for Collaborative Care

The ACA health home provision (Section 2703) can be used as a vehicle to incorporate the principles of collaborative care into the care management of complex Medicaid populations via an amendment to Medicaid state plan services for six specific core services:

- Comprehensive care management;
- Care coordination and health promotion;
- Comprehensive transitional care from inpatient to other settings, including appropriate follow-up;
- Individual and family support, which includes authorized representatives;
- Referral to community and social support services, if relevant; and
- The use of health information technology to link services, as feasible and appropriate.

To the extent that collaborative care is implemented in a model that incorporates all six of these services, and that complies with other federal and state-defined requirements, health homes create a scalable mechanism for implementing and paying for collaborative care in Medicaid.<sup>85</sup> States

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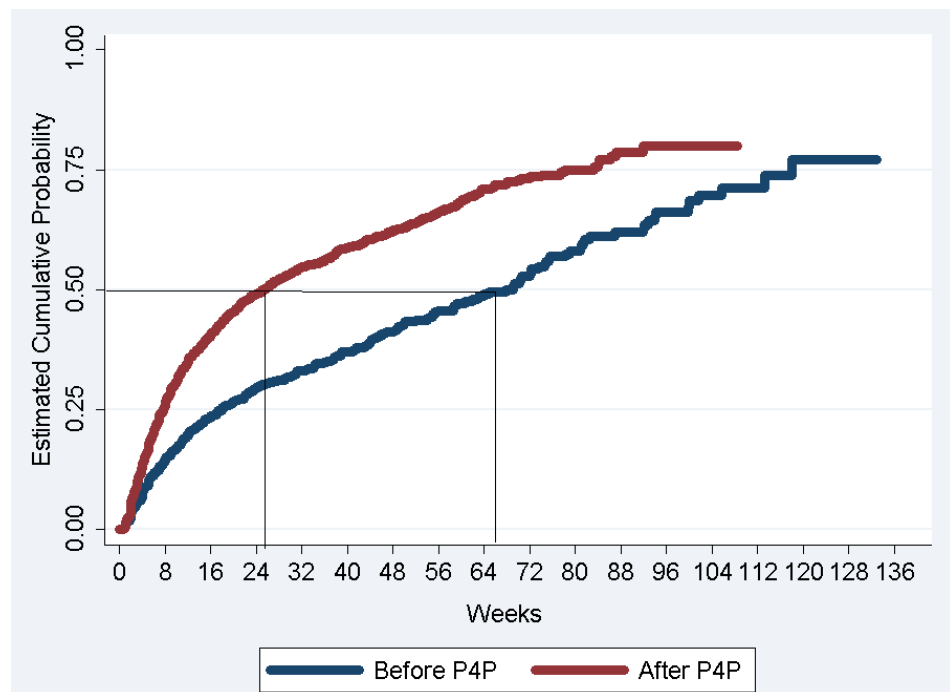
have substantial flexibility in defining what health home services entail and how they are delivered; such flexibility allows, for example, reimbursement for both in-person and virtual activities provided under the collaborative care model.

Large-scale implementations of collaborative care have used a number of different payment approaches ranging from fully capitated payment (e.g., Kaiser Permanente, Veterans Affairs, Department of Defense) to case-rate payments that augment fee-for-service billing by primary care providers (e.g., Minnesota’s DIAMOND program) in a way that is similar to case rate payments supporting PCMH services.

In Washington, MHIP incorporates a pay-for-performance component, in

which 25 percent of the payment for the program is tied to effective treatment. Performance is assessed on a number of quality indicators, including timely follow-up with patients; demonstration of improved patient outcomes; or systematic consultation and treatment adjustment for patients who are not improving. Since the pay-for-performance component was introduced in 2008, the effectiveness of the program has substantially improved; for instance, Exhibit 1 shows that the median time-to-improvement in depression was cut more than in half after implementation of the pay-for-performance incentive payment. These findings, based on a study of almost 8,000 depressed adults served in 29 community health clinics participating in MHIP, were published in the *American Journal of Public Health* in 2012.<sup>86</sup>

**Exhibit 1: Pay-for-performance-based quality improvement dramatically reduces median time to depression improvement in a state-wide collaborative care program.**



Source: Unutzer J, Chan YF, Hafer E, et al. Quality improvement with pay-for-performance incentives in integrated behavioral health care. *American Journal of Public Health*. Jun 2012;102(6):e41-45.



Notably, Medicaid health homes allow substantial flexibility in payment methodology (such as, but not limited to, capitated or case-rate payments mentioned above).

Some of the approved health home models also include the use of performance incentives based on state-defined quality measures. Specifically, Iowa will implement a pay-for-performance component in its program after the first year; Missouri and New York intend to implement a shared savings component to their payment models to incent performance.

Care managers support PCPs who are responsible for patients' treatment. They work closely with, and are often located in, the primary care practice. With appropriate training and supervision, collaborative care programs have successfully used personnel with various types of professional backgrounds as care managers, including licensed clinical social workers, licensed counselors (i.e., master's-level therapists), nurses, and medical assistants under the supervision of a nurse.

### Care Management and Care Coordination

Care manager responsibilities include:

- Screening for depression and other common mental disorders, or for medical conditions in patients with serious mental illnesses;
- Patient engagement and education;
- Close and pro-active follow-up focusing on treatment adherence, treatment effectiveness, and treatment side effects;
- Brief counseling using established and evidence-based techniques such as Motivational Interviewing, Behavioral Activation, and Problem-Solving Treatment in Primary Care;

- Regular (usually weekly) review of all patient who are not improving as expected with a psychiatric consultant;
- Facilitation of communication between the PCP and the psychiatric consultant;
- Facilitation of referrals to and coordination with outside mental health specialty care or medical specialty care, substance abuse services, and social services. Once patients have shown improvement, the care manager meets with the patient to establish a relapse prevention plan.

While these services are often provided via in-person patient contact in the patient's primary care clinic, telephonic or other electronic contact can also be effective (and efficient). A typical care manager carries an active caseload of 50-100 patients. A sample job description for a care manager providing these services is available.<sup>87</sup>

### Psychiatric Consultation with the Primary Care Treatment Team

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

Consultant responsibilities include regular (usually weekly) reviews of a caseload of patients treated for common mental disorders such as depression in a primary care practice by a consulting psychiatrist, with a focus on patients who are not improving as expected and treatment recommendations on those patients to the treating PCP. Recommendations are summarized in brief, focused written or electronic notes to the PCP.

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In collaborative care programs, the typical patient load for care managers is between 50 and 100 patients.

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Health home payment rates for collaborative care should fully cover core program components including care managers and psychiatric consultants.

In most cases, the review and recommendations are provided through a care manager supporting the PCP in primary care but in some cases, the communication is directly between the PCP and the consulting psychiatrist. The consulting psychiatrist is also available to the PCP during the week by pager to answer questions about recommendations made. The level of effort for consultants is typically three hours per week for each care manager's primary care caseload (typically 50-100 patients). A sample job description for consulting psychiatrists providing these services is available.<sup>88</sup>

### **Collaborative Care and Health Homes**

As required under federal statute, Medicaid health homes must have the capacity to manage the full continuum of beneficiary needs, including medical, behavioral, and long-term services and supports. The collaborative care model represents an evidence-based approach to physical-behavioral health integration, and one that can be built upon to address a broader range of beneficiary needs. For example, many of the practices that implemented evidence-based collaborative care for depression in the context of the statewide Minnesota DIAMOND program have incorporated the key components of collaborative care as they have developed more full scale PCMHs.<sup>89</sup> To qualify for health home reimbursement, providers implementing this model would need to make sure that all federal and state health home requirements are met, in addition to those directly addressed by the collaborative care model itself (e.g., care transitions, referrals to community services, etc.).

Financing for evidence-based collaborative care for common mental disorders in the context of a health home could be supported by adequate payments for these evidence-based

services that are a core component or an additional component of monthly care management fees or other forms of payment for health home services. It will be important, however, to make sure the rates fully cover the core components of such evidence-based programs including care managers based in primary care and psychiatric consultants who can systematically review the entire caseload of covered patients and make treatment recommendations on patients who are not improving as expected.

For patients treated in the public mental health system, community mental health centers are typically the first point of entry into the broader healthcare system. There has been a growing interest among mental health providers, advocates, and policymakers in developing behavioral health homes, clinics based in community mental health settings that provide integrated primary care services for their patients with serious mental illnesses.<sup>90</sup> The same core strategies used to improve care for common mental disorders – measurement-based care, treatment-to-target, and stepped care – can also be applied to improving primary medical care for patients treated in these new entities.

As of April 2013, 11 states have received federal approval for a total of 15 Medicaid Health Home State Plan Amendments. Ten out of 11 states include individuals with behavioral health conditions among the population to be served in health homes, where the key components of the collaborative care model could support effective implementation.

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### **Summary**

The new health homes service option has created a significant opportunity for states to invest in care management and care coordination services that have the potential to improve outcomes and reduce overall Medicaid costs. With this

new vehicle at their disposal, states are hungry for evidence-based models of care that could inform how they define health home services and provider qualifications. The research evidence for collaborative care for common mental disorders such as depression and anxiety disorders, along with robust experience implementing such

programs in diverse health care systems around the country, suggest that states should consider using this model as a building block for health homes and other initiatives that aim to better integrate care for Medicaid beneficiaries with chronic physical and behavioral health needs.

## References

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- <sup>1</sup>Moussavi S, Chatterji S, Verdes E, Tandon A, Patel V, Ustun B. "Depression, Chronic Diseases, and Decrements in Health: Results from the World Health Surveys." *Lancet*. September 8, 2007; 370 (9590): 851-858.
- <sup>2</sup>Kasper J, O'Malley Watts M, Lyons B. "Chronic Disease and Co-Morbidity Among Dual Eligibles: Implications for Patterns of Medicaid and Medicare Service Use and Spending." Kaiser Commission on Medicaid and the Uninsured, July 2010.
- <sup>3</sup>Wang PS, Simon GE, Kessler RC. "Making the Business Case for Enhanced Depression Care: The National Institute of Mental Health-Harvard Work Outcomes Research and Cost-effectiveness Study." *Journal of Occupational and Environmental Medicine / American College of Occupational and Environmental Medicine*. April 2008; 50 (4): 468-475.
- <sup>4</sup>Katon W. "The Impact of Depression on Workplace Functioning and Disability Costs." *The American Journal of Managed Care*. December 2009;15 (11 Suppl): S322-327.
- <sup>5</sup>Melek S. "Bending the Medicaid Healthcare Cost Curve through Financially Sustainable Medical-Behavioral Integration" Milliman.
- <sup>6</sup>Druss BG, Zhao L, Cummings JR, Shim RS, Rust GS, Marcus SC. "Mental Comorbidity and Quality of Diabetes Care under Medicaid: A 50-state analysis." *Medical Care*. May 2012;50(5):428-433.
- <sup>7</sup>Daumit GL, Anthony CB, Ford DE, et al. "Pattern of Mortality in a Sample of Maryland Residents with Severe Mental Illness." *Psychiatry Research*. April 30 2010;176(2-3):242-245.
- <sup>8</sup>Wang PS, Lane M, Olfson M, Pincus HA, Wells KB, Kessler RC. "Twelve-month Use of Mental Health Services in the United States: Results from the National Comorbidity Survey Replication." *Archives of General Psychiatry*. June 2005;62(6):629-640.
- <sup>9</sup>Regier DA, Narrow WE, Rae DS, Manderscheid RW, Locke BZ, Goodwin FK. "The de facto US Mental and Addictive Disorders Service System. Epidemiologic Catchment Area Prospective 1-year Prevalence Rates of Disorders and Services". *Archives of General Psychiatry*. February 1993;50(2):85-94.
- <sup>10</sup>Wang PS, Demler O, Olfson M, Pincus HA, Wells KB, Kessler RC. "Changing Profiles of Service Sectors Used for Mental Health Care in the United States." *American Journal of Psychiatry*. July 2006;163(7):1187-1198.
- <sup>11</sup>Callahan CM, Hendrie HC, Dittus RS, Brater DC, Hui SL, Tierney WM. "Improving Treatment of Late Life Depression in Primary Care: A Randomized Clinical Trial." *Journal of the American Geriatrics Society*. August 1994;42(8):839-846.
- <sup>12</sup>Cunningham PJ. "Beyond Parity: Primary Care Physicians' Perspectives on Access to Mental Health Care." *Health Affairs*. May-June 2009;28(3):w490-501.
- <sup>13</sup>Wang, Lane, Olfson, Pincus, Wells, Kessler, 2005, op. cit.
- <sup>14</sup>Wang PS, Demler O, Kessler RC. "Adequacy of Treatment for Serious Mental Illness in the United States." *American Journal of Public Health*. January 2002;92(1):92-98.
- <sup>15</sup>Stagnitti MN. *Trends in Antidepressant Use by the U.S. Civilian Noninstitutionalized Population, 1997 and 2002*. Rockville, MD: Agency for Healthcare Research and Quality;2005.
- <sup>16</sup>Mancuso D. Washington State Department of Social and Health Services, Research & Data Analysis Division. April 2011.
- <sup>17</sup>Rush AJ, Trivedi M, Carmody TJ, et al. "One-year Clinical Outcomes of Depressed Public Sector Outpatients: A Benchmark for Subsequent Studies." *Biological Psychiatry*. July 1 2004;56(1):46-53.
- <sup>18</sup>Unutzer J, Katon W, Callahan CM, et al. "Collaborative Care Management of Late-life Depression in the Primary Care Setting." *Journal of the American Medical Association*. December 11 2002;288(22):2836-2845.
- <sup>19</sup>Hansen N. "The Psychotherapy Dose-Response Effect and its Implications for Treatment Delivery Services." *Clinical Psychology: Science and Practice*. 2002;9(3):329-343.
- <sup>20</sup>Druss BG, Bradford WD, Rosenheck RA, Radford MJ, Krumholz HM. "Quality of Medical Care and Excess Mortality in Older Patients with Mental Disorders." *Archives of General Psychiatry*. Jun 2001;58(6):565-572.
- <sup>21</sup>Unutzer J, Schoenbaum M, Druss BG, Katon WJ. "Transforming Mental Health Care at the Interface with General Medicine: Report for the Presidents Commission." *Psychiatric Services*. January 1 2006;57(1):37-47.
- <sup>22</sup>Druss BG, Marcus SC, Campbell J, et al. "Medical Services for Clients in Community Mental Health Centers: Results from a National Survey." *Psychiatric Services*. August 2008;59(8):917-920.
- <sup>23</sup>Uebelacker LA, Smith M, Lewis AW, Sasaki R, Miller IW. "Treatment of Depression in a Low-income Primary Care Setting with Co-located Mental Health Care." *Families, Systems & Health : The Journal of Collaborative Family Healthcare*. June 2009;27(2):161-171.
- <sup>24</sup>Peikes D, Chen A, Schore J, Brown R. "Effects of Care Coordination on Hospitalization, Quality of Care, and Health Care Expenditures Among Medicare Beneficiaries: 15 Randomized Trials." *Journal of the American Medical Association*. February 11 2009;301(6):603-618.
- <sup>25</sup>McCall N, Cromwell J. "Results of the Medicare Health Support Disease Management Pilot Program." *The New England Journal of Medicine*. November 3 2011;365(18):1704-1712.
- <sup>26</sup>Gilbody S, Bower P, Fletcher J, Richards D, Sutton AJ. "Collaborative Care for Depression: A Cumulative Meta-analysis and Review of Longer-term Outcomes." *Archives of Internal Medicine*. November 27 2006;166(21):2314 - 2321.
- <sup>27</sup>Community Preventive Services Task Force. "Recommendation from the Community Preventive Services Task Force for Use of Collaborative Care for the Management of Depressive Disorders." *American Journal of Preventive Medicine*. May 2012;42(5):521-524.

- <sup>28</sup>Thota AB, Sipe TA, Byard GJ, et al. "Collaborative Care to Improve the Management of Depressive Disorders: A Community Guide, Systematic Review and Meta-analysis." *American Journal of Preventive Medicine*. May 2012;42(5):525-538.
- <sup>29</sup>Trivedi MH. "Treating Depression to Full Remission." *The Journal of Clinical Psychiatry*. January 2009;70(1):e01.
- <sup>30</sup>Von Korff M, Tiemens B. "Individualized Stepped Care of Chronic Illness." *Western Journal of Medicine*. February 2000;172(2):133-137.
- <sup>31</sup>Wagner EH, Austin BT, Von Korff M. "Organizing Care for Patients with Chronic Illness." *The Milbank Quarterly*. 1996;74(4):511-544.
- <sup>32</sup>Kroenke K, Spitzer RL, Williams JB. "The PHQ-9: Validity of a Brief Depression severity Measure." *Journal of General Internal Medicine*. September 2001;16(9):606-613.
- <sup>33</sup>Henke RM, Zaslavsky AM, McGuire TG, Ayanian JZ, Rubenstein LV. "Clinical Inertia in Depression Treatment." *Medical Care*. September 2009;47(9):959-967.
- <sup>34</sup>Arean PA, Ayalon L, Hunkeler E, et al. Improving Depression Care for Older, Minority Patients in Primary Care. *Medical Care*. April 2005;43(4):381-390.
- <sup>35</sup>Eli K, Aranda MP, Xie B, Lee PJ, Chou CP. "Collaborative Depression Treatment in Older and Younger Adults with Physical Illness: Pooled Comparative Analysis of Three Randomized Clinical Trials." *American Journal of geriatric psychiatry*. June 2010;18(6):520-530.
- <sup>36</sup>Eli K, Katon W, Cabassa LJ, et al. "Depression and Diabetes Among Low-income Hispanics: Design Elements of a Socioculturally Adapted Collaborative Care Model Randomized Controlled Trial." *International Journal of Psychiatry in Medicine*. 2009;39(2):113-132.
- <sup>37</sup>Eli K, Katon W, Xie B, et al. "Collaborative Care Management of Major Depression Among Low-income, Predominantly Hispanic Subjects with Diabetes: A Randomized controlled Trial." *Diabetes Care*. April 2010;33(4):706-713.
- <sup>38</sup>Miranda J, Duan N, Sherbourne C, et al. "Improving Care for Minorities: Can Quality Improvement Interventions Improve Care and Outcomes for Depressed Minorities? Results of a Randomized, Controlled Trial." *Health Services Research*. Apr 2003;38(2):613-630.
- <sup>39</sup>Miranda J, Schoenbaum M, Sherbourne C, Duan N, Wells K. "Effects of Primary care Depression Treatment on Minority Patients' Clinical Status and Employment." *Archives of General Psychiatry*. August 2004;61(8):827-834.
- <sup>40</sup>Gilbody, Bower, Fletcher, Richards, Sutton. 2006, op. cit.
- <sup>41</sup>Simon G. "Collaborative Care for Mood Disorders." *Current Opinion in Psychiatry*. January 2009;22(1):37-41.
- <sup>42</sup>Wolffmann E, Grogan-Kaylor A, Perron B, Georges H, Kilbourne AM, Bauer MS. "Comparative Effectiveness of Collaborative Chronic Care Models for Mental Health Conditions Across Primary, Specialty, and Behavioral Health Care Settings: Systematic Review and Meta-analysis." *American Journal of Psychiatry*. August 1 2012;169(8):790-804.
- <sup>43</sup>Reilly S, Planner C, Gask L, et al. "Collaborative Care Approaches for People with Severe Mental Illness." *Cochrane Library*. 2012.
- <sup>44</sup>Community Preventive Services Task Force, op. cit.
- <sup>45</sup>Thota, Sipe, Byard, et al. op. cit.
- <sup>46</sup>Roy-Byrne PP, Craske MG, Stein MB, et al. "A Randomized Effectiveness Trial of Cognitive-Behavioral Therapy and Medication for Primary Care Panic Disorder." *Archives of General Psychiatry*. March 2005;62(3):290-298.
- <sup>47</sup>AIMS Center, University of Washington. "IMPACT: Evidence-based Depression Care." <http://impact-uw.org>.
- <sup>48</sup>Unutzer, Katon, Callahan, et al. 2002, op. cit.
- <sup>49</sup>Lin EH, Katon W, Von Korff M, et al. "Effect of Improving Depression Care on Pain and Functional Outcomes Among Older Adults with Arthritis: A Randomized Controlled Trial." *Journal of the American Medical Association*. November 12, 2003;290(18):2428-2429.
- <sup>50</sup>Levine S, Unutzer J, Yip JY, et al. "Physicians' Satisfaction with a Collaborative Disease Management Program for Late-life Depression in Primary Care." *General Hospital Psychiatry*. November-December 2005;27(6):383-391.
- <sup>51</sup>Richardson L, McCauley E, Katon W. "Collaborative Care for Adolescent Depression: A Pilot Study." *General Hospital Psychiatry*. January-February 2009;31(1):36-45.
- <sup>52</sup>Eli K, Xie B, Quon B, Quinn DI, Dwight-Johnson M, Lee PJ. "Randomized Controlled Trial of Collaborative Care Management of Depression Among Low-income Patients with Cancer." *Journal of Clinical Oncology: Official Journal of the American Society of Clinical Oncology*. September 20 2008;26(27):4488-4496.
- <sup>53</sup>Katon WJ, Russo JE, Von Korff M, Lin EH, Ludman E, Ciechanowski PS. "Long-term Effects on Medical Costs of Improving Depression Outcomes in Patients with Depression and Diabetes." *Diabetes Care*. June 2008;31(6):1155-1159.
- <sup>54</sup>Gilmer TP, Walker C, Johnson ED, Philis-Tsimikas A, Unutzer J. "Improving Treatment of Depression Among Latinos with Diabetes Using Project Dulce and IMPACT." *Diabetes Care*. July 2008;31(7):1324-1326.
- <sup>55</sup>Peikes D, Zutshi A, Genevro J, Parchman ML, Meyers D. "Early Evaluations of the Medical Home: Building on a Promising Start." *The American Journal of Managed Care*. 2012;18(2):105-116.
- <sup>56</sup>Berwick DM, Nolan TW, and Whittington J. "The Triple Aim: Care, Health, and Cost." *Health Affairs*, May 2008, 27(3):759-769.
- <sup>57</sup>National Institute of Mental Health. *Mental Health: A Report of the Surgeon General*. 1999. Available at: <http://www.surgeongeneral.gov/library/mentalhealth/home.html>.
- <sup>58</sup>Substance Abuse and Mental Health Services Administration. *Achieving the Promise: Transforming Mental Health Care in America*. January 2003. Available at: <http://store.samhsa.gov/product/SMA03-3831>.
- <sup>59</sup>Finch RA, Phillips K. Center for Prevention and Health Services. *An Employer's Guide to Behavioral Health Services: A Roadmap and Recommendations for Evaluating, Designing, and Implementing Behavioral Health Services*. Washington, DC: National Business Group on Health; 2005. Available at: <http://www.businessgrouphealth.org/pub/f3139c4c-2354-d714-512d-355c09ddcb4>.
- <sup>60</sup>Butler M, Kane RL, McAlpine D, et al. "Integration of Mental Health/substance Abuse and Primary Care. *Evidence Report/Technology Assessment*. November 2008(173):1-362. Available at: <http://www.ahrq.gov/clinic/tp/mhsapctp.htm>.
- <sup>61</sup>Katon WJ, Lin E, Russo J, Unutzer J. "Increased medical Costs of a Population-based Sample of Depressed Elderly Patients." *Archives of General Psychiatry*. September 2003;60(9):897-903.
- <sup>62</sup>Simon GE, VonKorff M, Barlow W. "Health Care Costs of Primary Care Patients with Recognized Depression." *Archives of General Psychiatry*. October 1995;52(10):850-856.
- <sup>63</sup>Unutzer J, Patrick DL, Simon G, et al. "Depressive Symptoms and the Cost of Health Services in HMO Patients Aged 65 Years and Older - A 4-year Prospective Study." *Journal of the American Medical Association*. May 28 1997;277(20):1618-1623.
- <sup>64</sup>Gilbody S, Bower P, Whitty P. "Costs and Consequences of Enhanced Primary Care for Ddepression: Systematic Review of Randomised Economic Evaluations." *The British Journal of Psychiatry*. October 2006;189:297-308.
- <sup>65</sup>Glied S, Herzog K, Frank R. "Review: The Net Benefits of Depression Management in Primary Care." *Medical Care Research and Review*. June 2010;67(3):251-274.
- <sup>66</sup>Unutzer J, Katon WJ, Fan MY, et al. "Long-term Cost Effects of Collaborative Care for Late-life Depression." *The American Journal of Managed Care*. February 2008;14(2):95-100.
- <sup>67</sup>Ibid.

- 
- <sup>68</sup>Alexander L, Druss BG. *Behavioral Health Homes for People with Mental Health & Substance Abuse Conditions: The Core Clinical Features*. Washington, DC: SAMHSA-HRSA Center for Integrated Health Solutions with funds under grant number 1UR1SMO60319-01 from SAMHSA-HRSA, U.S. Department of Health and Human Services; May 2012.
- <sup>69</sup>Unützer J, Katon WJ, Fan MY, et al. "Long-term Cost Effects of Collaborative Care for Late-life Depression." *The American Journal of Managed Care*. February 2008;14(2):95-100.
- <sup>70</sup>Katon, Russo, Von Korff, Lin, Ludman, Ciechanowski, op. cit.
- <sup>71</sup>Katon WJ, Roy-Byrne P, Russo J, Cowley D. 2002, op. cit. "Cost-effectiveness and Cost Offset of a Collaborative Care Intervention for Primary Care Patients with Panic Disorder." *Archives of General Psychiatry*. December 2002;59(12):1098-1104.
- <sup>72</sup>Druss BG, von Esenwein SA, Compton MT, Zhao L, Leslie DL. "Budget Impact and Sustainability of Medical Care Management for Persons with Serious Mental Illnesses." *American Journal of Psychiatry*. November 2011;168(11):1171-1178.
- <sup>73</sup>Grypma L, Haverkamp R, Little S, Unutzer J. "Taking an Evidence-based Model of Depression care from Research to Practice: Making Lemonade out of Depression." *General Hospital Psychiatry*. March-April 2006;28(2):101-107.
- <sup>74</sup>Reiss-Brennan B, Briot PC, Savitz LA, Cannon W, Staheli R. "Cost and Quality Impact of Intermountain's Mental Health Integration Program." *Journal of Healthcare Management / American College of Healthcare Executives*. March-April 2010;55(2):97-113; discussion 113-114.
- <sup>75</sup>Wang, Simon, Kessler. 2008, op. cit.
- <sup>76</sup>Katon, 2009, op. cit.
- <sup>77</sup>Dismuke CE, Egede LE. "Association Between Major Depression, Depressive Symptoms and Personal Income in US Adults with Diabetes." *General Hospital Psychiatry*. September-October 2010;32(5):484-491.
- <sup>78</sup>Schofield DJ, Kelly SJ, Shrestha RN, Callander EJ, Percival R, Passey ME. "How Depression and Other Mental Health Problems Can Affect Future Living Standards of Those Out of the Labour Force." *Aging & Mental Health*. July 1 2011;15(5):654-662.
- <sup>79</sup>Wells K, Klap R, Koike A, Sherbourne C. "Ethnic Disparities in Unmet Need for Alcoholism, Drug Abuse, and Mental Health Care." *American Journal of Psychiatry*. December 2001;158(12):2027-2032.
- <sup>80</sup>Schoenbaum M, Unützer J, McCaffrey D, Duan N, Sherbourne C, Wells KB. "The Effects of Primary Care Depression Treatment on Patients' Clinical Status and Employment." *Health Services Research*. October 2002;37(5):1145-1158.
- <sup>81</sup>Wang PS, Simon GE, Avorn J, et al. "Telephone Screening, Outreach, and Care Management for Depressed Workers and Impact on Clinical and Work Productivity Outcomes: A Randomized Controlled Trial." *Journal of the American Medical Association*. September 26 2007;298(12):1401-1411.
- <sup>82</sup>MHIP – Mental Health Integration Program. <http://integratedcare-nw.org>.
- <sup>83</sup>"Patient-Centered Integrated Behavioral Health Care Principals and Tasks." University of Washington, AIMS Center. 2012. Available at: [http://uwaims.org/files/AIMS\\_Principles\\_Checklist\\_final.pdf](http://uwaims.org/files/AIMS_Principles_Checklist_final.pdf). ) "Implementation Guide: Team Building Tools." Available at: <http://uwaims.org/implementation-tools.html#TeamBuilding>.
- <sup>84</sup>Alexander L, Druss BG. *Behavioral Health Homes for People with Mental Health & Substance Abuse Conditions: The Core Clinical Features*. Washington, DC: SAMHSA-HRSA Center for Integrated Health Solutions with funds under grant number 1UR1SMO60319-01 from SAMHSA-HRSA, U.S. Department of Health and Human Services; May 2012.
- <sup>85</sup>State Medicaid Director's Letter 10-024--Re: Health Homes for Enrollees with Chronic Conditions, November 16, 2010. Available at <http://www.integratedcareresourcecenter.com/hhresources.aspx>.
- <sup>86</sup>Unutzer J, Chan YF, Hafer E, et al. "Quality Improvement with Pay-for-Performance Incentives in Integrated Behavioral Health Care." *American Journal of Public Health*. June 2012;102(6):e41-45.
- <sup>87</sup>AIMS Center. University of Washington. "Job Description: Care Manager." Available at: <http://uwaims.org/files/team-building/CareManagerJobDescription.pdf>.
- <sup>88</sup>AIMS Center. University of Washington. "Job Description: Psychiatric Consultant." <http://uwaims.org/files/team-building/ConsultingPsychiatristJobDescription.pdf>
- <sup>89</sup>The Minnesota DIAMOND model has not been implemented under Medicaid health home authority.
- <sup>90</sup>Alexander L, Druss BG. *Behavioral Health Homes for People with Mental Health & Substance Abuse Conditions: The Core Clinical Features*. Washington, DC: SAMHSA-HRSA Center for Integrated Health Solutions with funds under grant number 1UR1SMO60319-01 from SAMHSA-HRSA, U.S. Department of Health and Human Services; May 2012.