

# Consultation Psychiatry in the Medical Home and Accountable Care Organizations: Achieving the Triple Aim

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We are in a time of increasing concern about unsustainable increases in health care costs to Medicare, Medicaid, employers and individuals. At the same time, more than half of patients with mental health needs do not receive care in any given year [1], and untreated mental disorders can be important drivers of high health care costs. As in the rest of health care, we are challenged with achieving the “triple aim” of improving access to care while at the same time improving quality and outcomes of care and reducing total health care costs [2]. To achieve this triple aim, psychiatrists of the future will have to shift professional roles. In addition to traditional consultation liaison activities focused on individual patients in outpatient clinics or hospital settings, psychiatrists should have important roles in monitoring behavioral health needs, treatments and treatment outcomes for defined populations of patients and providing supervision and guidance to interdisciplinary teams of primary care and behavioral health providers caring for a defined panel of patients.

Two important concepts that are being advocated to improve patients’ experience and satisfaction with care as well as the quality and cost-effectiveness of medical care are primary care-based patient-centered medical homes and accountable care organizations (ACOs). The principles of the medical home are aimed at enhancing the potential benefits of primary care by emphasizing access to care, long-term relationships with health care providers, and coordination and comprehensiveness of care [3]. These principles also emphasize the importance of health care teams using evidence-based approaches and effective quality improvement

methods [1]. Payment systems are being developed to provide financial incentives for primary care practices to transform their practices into medical homes and to make “meaningful use” of electronic medical record systems and other health information technology to improve coordination, quality and outcomes of care. The National Committee for Quality Assurance (NCQA) has established criteria for levels of adaptation of practices to the medical home concept, with increasing payments for higher levels of development [4]. These criteria include the capacity to care for patients with behavioral health conditions. Federal and state payers are also developing criteria for quality of care including behavioral health care for populations that will gain insurance coverage under health care reform [5].

Accountable care organizations are built on the concept of physicians, nurses and other allied health professionals working as a team to provide the most efficient and cost-effective care of patients across different care settings [6]. The concept of ACOs assumes that primary and specialty care systems and hospitals will work closely together, often as single governing units [6]. Electronic records will integrate outpatient and inpatient systems and other information technologies such as patient registries are seen as key tools in improving the continuity and effectiveness of practice. ACOs will share with the federal government financial savings the organization may produce in medical costs to the population they are responsible for [7].

Given the changes in health care systems and the emphasis on improving quality of care and decreasing costs, what are the potential roles of consultation

psychiatrists in enhancing the aims of medical homes and ACOs?

The prevalence of common mental disorders in primary care populations is approximately 20% to 25% in employed populations [8] and up to 50% in uninsured or Medicaid populations [9]. Under the Affordable Care Act, the “low income expansion” of Medicaid is scheduled to more than double the number of working age adults receiving Medicaid by 2014. Given that mental illnesses are an important driver of disability and associated unemployment and poverty [10], we can expect high rates of mental health and substance abuse disorders in this expansion population, and cost-effective integrated behavioral health care will be a high opportunity intervention area for Medicaid.

After controlling for socioeconomic factors and medical comorbidity, primary care patients with anxiety and depressive disorders have been shown to have up to twofold greater medical costs compared with patients without mental health disorders [11,12]. Patients with anxiety and depressive disorders have also been shown to present to primary care approximately 70% of the time with physical rather than mental health complaints [13]. Those presenting with physical complaints are more likely to have delay in mental health diagnosis or misdiagnosis [14]. Patients with anxiety and depressive disorders have also been found to have two- to threefold more physical symptoms on medical review of systems even after controlling for medical comorbidity [14], which may explain the large increases in medical costs these patients have.

Because of the economic incentives, many primary care clinics will be reorganizing staff and systems of care to qualify for meeting criteria for a medical home. The 2011 NCQA criteria for becoming a level 2 medical home will require primary care clinics to demonstrate population-based approaches for quality improvement for three chronic illnesses, one of which must be a behavioral disorder such as major depression [4]. Consultation psychiatrists can utilize the knowledge developed from over 20 years of research and 40 randomized controlled trials on collaborative care for depression [15] to aid primary care systems in developing interdisciplinary teams, which improve the cost-effectiveness of care provided for depression and other common mental disorders. Such programs include an allied health professional (also called behavioral health care manager or a behavioral health professional) in primary care who supports behavioral health treatments initiated by primary care providers. Health care managers are trained to provide patient education about common mental disorders, proactively track clinical symptoms using rating scales such as

the Patient Health Questionnaire-9 [16] for depression and the Generalized Anxiety Disorder-7 [17] for anxiety, support adherence to medications and provide brief, evidence-based forms of counseling such as behavioral activation or problem-solving treatment. Each collaborative care team also includes a consulting psychiatrist who provides caseload-focused consultation and supervision for a panel of patients treated in primary care. The psychiatrist advises primary care providers about diagnostic and therapeutic questions such as changes in medication management if patients are not improving as expected. The psychiatrist may also see selected patients who provide particular diagnostic or therapeutic challenges in consultation either in person or via televideo technology. Such collaborative depression care programs have been shown to improve quality of depression care and depression outcomes [15], social and physical functioning [15] and satisfaction with care for patients and primary care providers [18]. Collaborative depression care has been shown to be cost-effective compared with usual primary care because for a small increment in cost, there is a marked improvement in depression and other health outcomes [19]. Collaborative depression care has been shown to be effective over the entire age span, including adolescents [20], adults [15] and older adults with a range of comorbid medical problems [21,22].

Given the very high prevalence of mental disorders and alcohol and substance abuse in Medicaid and uninsured populations [9,23], Federally Qualified Health Centers and many other primary care clinics serving safety net populations have added mental health professionals including psychiatrists to their staffs [24]. The Veteran’s administration and several statewide health insurance programs fund integrated collaborative care teams in primary care that include behavioral health care managers and psychiatric consultation that focuses on a panel of patients and may not involve direct patient contact. These programs include the DIAMOND (Depression Improvement across Minnesota: a New Direction) program in which six large commercial payors in the state of Minnesota provide case rate payments for evidence-based collaborative care for depression in over 80 primary care clinics in the state of Minnesota [25]. Over 6000 clients have been served by this program to date, and early outcomes suggest similar rates of depression improvement as in randomized controlled trials of collaborative care [25]. A similar statewide program is the Mental Health Integration Program sponsored by State of Washington and Public Health of Seattle and King County in collaboration with the Community Health Plan of Washington [26]. In this program,

behavioral health care coordinators work in over 100 community health centers throughout the state working with primary care providers to care for safety net patients with both medical and behavioral health needs. A group of 20 consulting psychiatrists provide regular (weekly) consultation to behavioral health care coordinators and primary care providers in the participating community health centers. Treatment for patients who require more intensive behavioral health care is coordinated with 1 of 30 partnering community mental health centers. Over 18,000 individuals have received integrated behavioral health care in this program, and an early program evaluation shows beneficial effects on homelessness and arrest rates in addition to high rates of engagement and improved patient outcomes [26].

In some populations, collaborative care has been also shown not only to be cost-effective but also to have a high likelihood of savings in total medical costs while improving outcomes. In the Epidemiologic Catchment Area Study, the community respondents with panic disorder had the highest risk compared with community respondents without psychiatric disorders of being high utilizers of medical services [27]. Patients with panic often present with frightening cardiologic, gastrointestinal and neurologic symptoms that precipitate expensive medical workups [28]. Two studies that compared collaborative care approaches to usual primary care in treatment of panic disorder have shown a high likelihood of savings in total medical costs and improved anxiety and quality of life outcomes [29,30]. In one of these trials, the addition of two to three psychiatric visits aimed at improving psychopharmacologic management of panic disorder significantly improved outcomes compared with usual care [29]. In the second trial, the psychiatrist acted as a supervisor of an anxiety care manager and recommended changes in medication that the case manager brought to the primary care physicians [30].

Another subgroup of patients that have extremely high medical utilization and costs are those with chronic somatization. These patients have often experienced high rates of childhood adversity, have many adverse health behaviors (such as smoking, poor diet and obesity, sedentary lifestyle and substance abuse), often prematurely develop diseases of aging such as diabetes and heart disease, and present to physicians with many physical symptoms that cannot be explained by medical workups [31,32]. They often experience both chronic emotional and physical pain and are at high risk for iatrogenic harm due to unnecessary procedures, surgeries and overuse of prescription medications, particularly opiates and benzodiazepines. In many states, Medicaid pharmacy

budgets have been stressed because of the widespread use of expensive prescription opiates for chronic benign pain. There is also increasing concern about adverse selection — the use of these medications by primary care physicians for high-risk populations with extensive psychiatric histories and/or prior histories of drug and alcohol abuse [33]. Psychiatrists can help by developing guidelines for screening populations for high risk for overuse of those medications, developing comprehensive management plans that include addressing functional impairment and untreated mental disorders and helping primary care practices implement safe limits on dosage and prescription refills.

Consultation with a psychiatrist can also play an important role in patients with chronic somatization in providing an accurate diagnosis and developing treatment plans that help minimize risk of addiction to prescription medications and overly aggressive medical and surgical interventions. Development of behavior contracts such as pain contracts can be very helpful in reducing prescription drug abuse and adverse outcomes. Recent studies have also demonstrated the effectiveness of collaborative care approaches coupled with Suboxone treatments for primary care patients who often had overlapping opiate addiction and pain problems [34]. Alcohol and substance abuse screening and brief intervention programs in primary care have been shown to be effective and associated with a high likelihood of cost savings [35]. Psychiatrists with addiction training could play a role in supervising care managers for these patient populations. On the extreme end of patients with somatization are those with somatization disorder, whose medical costs may be 5- to 10-fold higher than primary care controls [36]. Several trials that focused on providing practitioners with more accurate diagnosis and recommend management plans based on a psychiatric consultation for patients with somatization disorder or subclinical somatization disorder have shown a high likelihood of cost savings [36,37].

## **1. COMORBID MEDICAL AND PSYCHIATRIC ILLNESS**

With the aging of the US population, more and more Americans are living with one or more chronic medical illnesses, and rates of major depression have been found to be two- to threefold higher in patients with chronic medical illness [38]. Depression is also more persistent in aging populations with chronic medical illnesses, with the mean duration of an episode of 18 months [39]. Comorbid depression has been found to be associated with poor self-care (i.e., adherence to diet, exercise and taking

medications as prescribed), higher medical symptom burden, greater functional impairment and higher risk of complications and mortality [40]. Comorbid depression in patients with chronic medical illness also has been shown to be associated with 50% to 70% greater costs [41]. Given the high level of baseline costs due to medical illness, this increase in costs is magnified. For instance, in a large health maintenance organization, the total annual medical cost of a middle-aged patient without significant medical illness is about US\$1500, the cost of a middle-aged patient with depression without comorbid medical illness is about US\$3000, the cost of a middle-aged patient with diabetes is about US\$6,000 and the cost of a middle-aged patient with diabetes and comorbid depression is over US\$9000 [11,12,41].

Three trials of collaborative depression care versus usual primary care in patients with diabetes and comorbid depression have shown that collaborative care was more effective in improving quality of depression care and depression outcomes over a 2-year period [42–44]. The Improving Mood-Promoting Access to Collaborative Treatment trial randomized 1801 aging patients with depression and a mean of four other chronic illnesses to collaborative versus usual care and also showed improved depression outcomes and functioning in the intervention versus usual care group over a 2-year period [45]. All four trials provided an intervention with a care manager, who encouraged a choice of starting with antidepressant medication or an evidence-based psychotherapy. A psychiatrist conducted weekly supervision on the entire caseload of the care manager, focusing on patients who provide diagnostic or therapeutic challenges or who are not improving as expected. The psychiatric consultant recommended initial medication choices, changes in medications if patients were not improving, or other diagnostic or therapeutic suggestions that care managers then would communicate to the primary care physician. All four trials have shown a high likelihood that the increased mental health costs associated with collaborative care were offset by savings in total medical costs over a 2-year period [42–45]. Two of these examined long-term costs and showed continued cost savings associated with collaborative care for up to 5 years [46,47].

Although quality improvement trials have shown that care management approaches aimed at improving care of single illnesses such as depression, diabetes and coronary heart disease can improve outcomes, many patients have multiple chronic illnesses, and these patients have the most problems with quality of care and adverse outcomes and are very costly to medical systems [48]. For instance,

among Medicare beneficiaries with diabetes, depression or congestive heart failure, approximately 60% to 70% have three or more other chronic medical conditions [48]. Patients with three or more chronic conditions have been found to account for approximately 40% of Medicare costs [48,49]. A new multicondition collaborative care intervention program, termed TEAMcare, has been shown to improve depression, glucose, blood pressure and low-density lipoprotein cholesterol outcomes compared with usual care in patients with poorly controlled diabetes and/or coronary heart disease and comorbid depression [50]. This program trained diabetes nurses to enhance treatment of diabetes, coronary heart disease and depression and provided weekly supervision of nurses by both a psychiatrist and primary care physician. The TEAMcare intervention can be used by primary care systems to meet the 2011 NCQA criteria for a level 2 medical home that will require quality improvement efforts for two chronic medical diseases and one behavioral condition [4]. Preliminary data from this study suggest a high likelihood of total outpatient cost savings over a 2-year period.

## 2. INPATIENT MEDICAL/SURGICAL READMISSION

A major focus of the health reform will be to attempt to decrease hospital readmissions among chronically ill patients [51]. Several models have been developed to improve continuity between inpatient admission and outpatient medical care to decrease readmissions [52,53]. These models have, however, not focused attention on the high rates of depression, post-traumatic stress disorder and cognitive impairment that have been documented in patients with a serious medical/surgical admission [54–56]. Prior epidemiologic data have shown that comorbid depression and other psychiatric illnesses are risk factors for readmission in these populations [55]. Psychiatrists can help with implementing effective screening and treatment for psychiatric problems such as depression and delirium in the context of these emerging health service models.

## 3. CONCLUSION

Evidence-based collaborative care programs effectively “leverage” the specialty expertise of a consulting psychiatrist who takes responsibility for an entire panel of patients cared for by an integrated behavioral health care team in a medical home or an ACO. Consulting psychiatrists regularly discuss a panel of patients with case managers and primary care physicians, and they may perform brief, focused



evaluations of patients where there are diagnostic questions (e.g., clarification of a diagnosis of bipolar disorder) in person or via telemedicine, but they limit traditional complete face-to-face evaluations to patients who are not improving as expected. This approach can improve access to behavioral health care for large populations served in primary care and focuses the specialty expertise of consultants on the patients who are the most challenging. These population-focused collaborative care approaches can help health care systems achieve the triple aim of improving access to evidence-based behavioral health care, improving patient and provider satisfaction, improving health outcomes and reducing health care costs.

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## REFERENCES

- 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. *Arch Gen Psychiatry* 2005;62:629–40.
- Berwick DM, Nolan TW, Whittington J. The triple aim: care, health, and cost. *Health Aff (Millwood)* 2008;27:759–69.
- Reid RJ, Coleman K, Johnson EA, Fishman PA, Hsu C, Soman MP, et al. The group health medical home at year two: cost savings, higher patient satisfaction, and less burnout for providers. *Health Aff (Millwood)* 2010;29:835–43.
- National Committee for Quality Assurance. Standards for Patient-Centered Medical Home Care (PCMH), 2011. Available at: <http://www.ncqa.org/tabid/629/Default.aspx>. Accessed on April 20 2011.
- Department of Health and Human Services. Medicaid program: initial core set of health quality measures for Medicaid-eligible adults. Federal Register: the daily journal of the United States Government. Available at: <http://www.federalregister.gov/articles/2010/12/30/2010-32978/medicaid-program-initial-core-set-of-health-quality-measures-for-medicad-eligible-adults>. Accessed on April 20 2011.
- Kastor JA. Accountable care organizations at academic medical centers. *N Engl J Med* 2011;364:e11.
- Berwick DM. Launching accountable care organizations—the proposed rule for the Medicare Shared Savings Program. *N Engl J Med*. [ePub March 31, 2011]. Available at: <http://www.healthpolicyandreform.nejm.org/?p=14106>. Accessed on April 20 2011.
- Spitzer RL, Kroenke K, Williams JB. Validation and utility of a self-report version of PRIME-MD: the PHQ primary care study Primary Care Evaluation of Mental Disorders Patient Health Questionnaire. *JAMA* 1999;282:1737–44.
- Mauksch LB, Tucker SM, Katon WJ, Russo J, Cameron J, Walker E, et al. Mental illness, functional impairment, and patient preferences for collaborative care in an uninsured, primary care population. *J Fam Pract* 2001;50:41–7.
- Social Security Administration. SSI annual statistical report, 2009. Available at: [http://www.socialsecurity.gov/policy/docs/statcomps/ssi\\_asr/](http://www.socialsecurity.gov/policy/docs/statcomps/ssi_asr/). Accessed on April 20 2011.
- Katon WJ, Lin E, Russo J, Unutzer J. Increased medical costs of a population-based sample of depressed elderly patients. *Arch Gen Psychiatry* 2003;60:897–903.
- Simon GE, VonKorff M, Barlow W. Health care costs of primary care patients with recognized depression. *Arch Gen Psychiatry* 1995;52:850–6.
- Kirmayer LJ, Robbins JM, Dworkind M, Yaffe MJ. Somatization and the recognition of depression and anxiety in primary care. *Am J Psychiatry* 1993;150:734–41.
- Kroenke K, Spitzer RL, Williams JB, Linzer M, Hahn SR, deGruy 3rd FV, et al. Chiatric disorders and functional impairment. *Arch Fam Med* 1994;3:774–9.
- Gilbody S, Bower P, Fletcher J, Richards D, Sutton AJ. Collaborative care for depression: a cumulative meta-analysis and review of longer-term outcomes. *Arch Intern Med* 2006;166:2314–21.
- Kroenke K, Spitzer R, Williams J. The PHQ-9: validity of a brief depression severity measure. *J Gen Intern Med* 2001;16:606–13.
- Spitzer RL, Kroenke K, Williams JB, Lowe B. A brief measure for assessing generalized anxiety disorder: the GAD-7. *Arch Intern Med* 2006;166:1092–7.
- Levine S, Unutzer J, Yip JY, Hoffing M, Leung M, Fan MY, et al. Physicians' satisfaction with a collaborative disease management program for late-life depression in primary care. *Gen Hosp Psychiatry* 2005;27:383–91.
- van Steenberg-Weijnenburg KM, van der Feltz-Cornelis CM, Horn EK, van Marwijk HW, Beekman AT, Rutten FF, et al. Cost-effectiveness of collaborative care for the treatment of major depressive disorder in primary care: A systematic review. *BMC Health Serv Res* 2010;10(1):19.
- Asarnow JR, Jaycox LH, Duan N, LaBorde AP, Rea MM, Murray P, et al. Effectiveness of a quality improvement intervention for adolescent depression in primary care clinics: a randomized controlled trial. *JAMA* 2005;293:311–9.
- Unutzer J, Katon W, Callahan CM, Williams JW Jr, Hunkeler E, Harpole L, et al. Collaborative care management of late-life depression in the primary care setting: a randomized controlled trial. *JAMA* 2002;288:2836–45.
- Bruce ML, Ten Have TR, Reynolds III CF, Katz II, Schulberg HC, Mulsant BH, et al. Reducing suicidal ideation and depressive symptoms in depressed older primary care patients: a randomized controlled trial. *JAMA* 2004;291:1081–91.
- Sareen J, Afifi TO, McMillan KA, Asmundson GJ. Relationship between household income and mental disorders: findings from a population-based longitudinal study. *Arch Gen Psychiatry*. 68:419–27.
- National Association of Community Health Centers (NACHC). NACHC 2010 Assessment of Behavioral Health Services In Federally Qualified Health Centers. Published in January 2011. Available at: [http://www.nachc.com/client/NACHC%202010%20Assessment%20of%20Behavioral%20Health%20Services%20in%20FQHCs\\_1\\_14\\_11\\_FINAL.pdf](http://www.nachc.com/client/NACHC%202010%20Assessment%20of%20Behavioral%20Health%20Services%20in%20FQHCs_1_14_11_FINAL.pdf). Accessed on April 20 2011.
- Korsen N, Pietruszewski P. Translating evidence to practice: two stories from the field. *J Clin Psychol Med Settings* 2009;16:47–57.
- Center for Healthcare Improvement for Addictions, Mental Illness and Medically Vulnerable Populations (CHAMMP). Available at: <http://www.chammp.org/>. Accessed on April 20 2011.
- Simon GE. Psychiatric disorder and functional somatic symptoms as predictors of health care use. *Psychiatr Med* 1992;10:49–59.
- Katon W. Panic disorder and somatization Review of 55 cases. *Am J Med* 1984;77:101–6.
- Katon WJ, Roy-Byrne P, Russo J, Cowley D. Cost-effectiveness and cost offset of a collaborative care intervention for primary care patients with panic disorder. *Arch Gen Psychiatry* 2002;59:1098–104.
- Katon W, Russo J, Sherbourne C, BS M, Craske M, Fan MY, et al. Incremental cost-effectiveness of a collaborative care intervention for panic disorder. *Psychol Med* 2006;36:353–63.
- Walker EA, Gelfand A, Katon WJ, Koss MP, Von Korff M, Bernstein D, et al. Adult health status of women with histories of childhood abuse and neglect. *Am J Med* 1999;107:332–9.
- Dickinson LM, deGruy FV III, Dickinson WP, Candib LM. Health-related quality of life and symptom profiles of female survivors of sexual abuse. *Arch Fam Med* 1999;8:35–43.
- Sullivan MD. Who gets high-dose opioid therapy for chronic non-cancer pain? *Pain* 151:567–8.
- Alford DP, Labelle CT, Kretsch N, Bergeron A, Winter M, Botticelli M, et al. Collaborative care of opioid-addicted patients in primary care using buprenorphine: five-year experience. *Arch Intern Med* 2011;171:425–31.
- Maciosek MV, Coffield AB, Flottemesch TJ, Edwards NM, Solberg LJ. Greater use of preventative services in US health care should save lives at little cost. *Health Aff (Millwood)* 2010;29:1656–60.
- Rost K, Kashner TM, Smith Jr RG. Effectiveness of psychiatric intervention with somatization disorder patients: improved outcomes at reduced costs. *Gen Hosp Psychiatry* 1994;16:381–7.
- Smith Jr RG, Monson R, Ray D. Psychiatric consultation in somatization disorder: a randomized controlled trial. *New Engl J Med* 1986;314:1407–13.
- Katon WJ. Clinical and health services relationships between major depression, depressive symptoms, and general medical illness. *Biol Psychiatry* 2003;54:216–26.
- Licht-Strunk E, Van Marwijk HW, Hoekstra T, Twisk JW, De Haan M, Beekman AT. Outcome of depression in later life in primary care: longitudinal cohort study with three years' follow-up. *BMJ* 2009;338:a3079.

