

The Behavioral Health Managed Care Initiative: Standards, Guidelines and Competencies

Mental Health Care for Patients with Chronic Medical Illnesses

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Executive Summary

Integration of behavioral health and medical care historically has been a problematic clinical issue. However, many mental health care providers have provided consultations to medical practitioners either as a focus of their practice or as a way to develop a practice in a community. As a result of the carve-out of mental health benefits from general medical benefits, this type of care often will fall between the cracks, as behavioral health care may not routinely be covered as part of a medical inpatient stay. Furthermore, if patients are receiving care in an outpatient setting, coordination of care between medical and mental health settings may be difficult and may lead to several discontinuities of care secondary to the utilization of different systems of care where access to psychiatric care may be severely limited. Patients experiencing both medical and mental illness concomitantly represent a significant proportion of all medical and psychiatric patients. The presence of co-morbid medical and psychiatric disorders leads to significantly greater morbidity and mortality for both disorders, as well as significant impact on functional capacity. Studies have shown that coordinated intervention between medical and behavioral health care delivery systems can maximize both clinical and economic outcomes for such patients.

As there is ample evidence to suggest that integrated care is critical to ensuring maximal clinical and economic benefit, the lack of policy and funding is significantly problematic. There is clearly a need to drive the process forward and to offer the evidence that the clinical need exists, that the impact of such co-morbidity is both common and far-reaching and that without clear policy recommendation, access to care will continue to be significantly limited.

To address these issues, the Managed Care Initiative, funded by the Center for Mental Health Services, Substance Abuse and Mental Health Services Administration, and the U.S. Department of Health and Human Services, brought together a panel of experts representing the key stakeholders in this area. The twelve representatives included members from several professional groups (nurses, psychiatrists, social worker, and psychologists), as well as individuals representing several viewpoints (patient/family members, managed care, public sector health, specialty psychiatry and psychology, and researchers).

The panel's goals were to: identify the clinical evidence of co-morbid mental/medical illness; discuss what is known about treatment effectiveness; outline current models of integration; review existing clinical guidelines, accreditation standards, and health plan provisions; and make recommendations addressing the need to effectively coordinate medical and behavioral health care.

In order to understand why it is important to provide behavioral health care for this population, one must first understand the relationship between chronic medical illness and mental illness. Throughout the paper, this relationship will be examined with a focus on the five most common chronic medical illnesses in the United States, heart disease, diabetes, chronic obstructive pulmonary disease (COPD), hypertension and cancer. The paper demonstrates that although it is clear that behavioral health care of patients with chronic medical illness is beneficial, most patients with medical illnesses do not receive adequate behavioral health care. Repeated studies have shown that not only do depression and other psychiatric illnesses occur with increased frequency in patients with chronic medical illnesses (Wells, 1988), but that when psychiatric and medical illnesses co-occur the course and outcome of medical illness is adversely effected (Katon, 1996; Katon & Sullivan, 1990).

Co-morbid psychiatric illness in the medically ill is associated with increased frequency and severity of medical symptoms, additive impairment in social and vocational functioning and increased health care costs (Katon & Sullivan, 1990). There is also accumulating evidence, especially in patients with coronary heart disease, that co-morbid major depression is associated with increased mortality (Dwight & Stoudemire, 1997).

Depression is one of the most common psychiatric illnesses in patients with medical illness; antidepressant medication is the most common form of treatment for depression. Several studies have shown that depressed patients who receive treatment for depression are more likely to experience improvement in depressive symptoms than the those who do not receive treatment (Gil, 1997). Antidepressants can further improve a person's quality of life by relieving disease-related distress and functioning (Borson, 1992). There have been legitimate concerns about the safety of antidepressants in chronic medically ill patients with heart disease, diabetes, and cancer. However, there are antidepressant regimens that have been proven safe for cardiac, diabetic, and cancer patients.

Psychotherapy and other psychosocial interventions are additional types of treatment for depressive symptoms. Studies suggest that participation in group therapy and cognitive behavioral therapy have improved outcomes in cancer and diabetic patients (Spiegel, 1989; Fawzy, 1990, 1993 & Lustman, 1998). Results of psychotherapy and psychosocial intervention research for patients with COPD and cardiac disease are mixed. The majority of these studies have shown improvement in anxiety and depressive symptoms with comprehensive rehabilitation. However, intervention-specific investigations have shown only nominal improvement and suggest a need for more research in this area (Borson, 1998).

Typical treatment for depression provided in the primary care setting may be inadequate by several measures including: rates of detection; frequency of follow-up; rates of referrals for counseling; and adequacy of antidepressant dosage. Although primary prevention or early detection of illness should be a major focus of primary care practice, only about half of those patients who present to their primary care physician with major depression are accurately

diagnosed (Eisenberg, 1992). Patients who present depressive or anxiety symptoms (like depressed mood, hopelessness, and suicidal thoughts), are almost always properly diagnosed. Conversely, a diagnosis of major depression is often missed in patients who present with unexplained somatic symptoms or a symptomatic worsening of a chronic medical illness (Kirmayer, 1993).

There is a dichotomy between primary care and specialized mental health care in secondary prevention (treatment) of mental illness as well. In a large multisite study, patients with psychiatric diagnosis who were under the care of a mental health specialist had an average of ten visits per year, whereas patients with psychiatric diagnoses under the care of general medical providers had only one mental health visit per year (Wells, 1994). This finding suggests that under-utilization of mental health services for patients seen in a primary care setting exists.

Several studies have shown that all patients of general medical settings, both in and outpatient, do not receive adequate doses of antidepressants. The Agency for Health Care Policy and Research (AHCPR), among others (Katon, 1992), have made recommendations about the adequacy and duration of antidepressant treatment of depression in the primary care setting. Of primary care patients with recognized depression, only 40% to 60% receive antidepressant treatment that meets AHCPR guidelines (Katon, 1997). For those patients who do receive antidepressants, 40% received an inadequate dose (Well, 1994).

Although there are psychotherapeutic alternatives to the use of antidepressants in the treatment of major depression, general medical practitioners do not use them. Depressed patients in general medical practice are even less likely to receive referrals for counseling than to receive antidepressants (Katon, 1997). Less than 10% of depressed primary care patients receive specific psychotherapies found to be effective in treatment of major depression (Katon, 1997).

While co-morbid psychiatric and medical illness is common and evidence-based effective treatments exist for this patient population, there is evidence that most patients do not receive effective treatment. One evidence-based model is one that co-locates medical and behavioral health care. This treatment model's goal is to improve access to treatment. Co-location of behavioral healthcare services which serve primary care patients in the medical setting; outpatient prevalence-based case finding using two stage psychiatric screening instruments for primary care; use of evidence-based psychiatric intervention coupled with disease management; integrated inpatient medical and behavioral health treatment programs; and the coordination of reimbursement procedures for medical and behavioral health care could all be used to foster coordination and integration of medical and behavioral health care. Furthermore, the economic impact of such models should be considered carefully and thoroughly when planning for integration.

The provision of integrated and coordinated behavioral health care for medically ill patients is not routinely included in health plans, Medicaid request for proposals (RFPs), quality indicators, and contracts between providers or health plans. Therefore, this document is a critical addition to the efforts to insure that such care can be provided competently and consistently. Furthermore, since there is no easily identifiable patient population to advocate on behalf of this care or any grass-roots/community supported initiatives to call attention to the problem and create policy, legislative solutions have been lacking.

This paper outlines the currently existing practice guidelines, accreditation standards, and health plan provisions that address the provision of psychiatric care to the medically ill including the following documents.

- Academy of Psychosomatic Medicine Practice Guidelines
- Psychiatric Consultation in the General Medical Setting
- AHCPR Clinical Practice Guideline
- Depression in Primary Care;
- JCAHO Accreditation Standards
- NCQA & HEDIS Accreditation Standards
- Medicaid RFPs
- Health Plan Inclusion
- Medicaid Contracts

The NCQA accreditation standards are the only one of this group that begin to address the need for integrated biopsychosocial care. However, none of the documents reviewed address the significant economic barriers to providing care, and none call for the review of contractual arrangements, which clearly define how reimbursement will occur.

The panel recommends that integrated systems for behavioral and physical health care be formed. Health care policy that can impact this change needs to be developed and implemented. First, recommendations regarding medical care should specifically address the need to include behavioral healthcare services and assure coordination. Secondly, the panel has made several other recommendations aimed at improving language in health plans, contracts, and accreditation standards that may improve the ability to guarantee that this care is delivered.

I. INTRODUCTION:

The provision of mental health services to chronic medically ill patients has traditionally been seen as a small subset of all mental health care delivered. However, as greater inequities have existed between the availability of mental health and physical health services, the inadequacies of funding for the mental health care of this population has become more pronounced. The widespread utilization of mental health carve-outs to address both the provision of and reimbursement for mental health treatment has also accentuated this patient population's needs and their inability to easily gain access to appropriate mental health care.

Clinical and research evidence strongly support the presence of increased rates of psychiatric disorders in chronic medically ill patients. It has been shown that when comorbidity exists, there is significant impact on medical morbidity and mortality, social and vocational functioning, quality of life, and utilization of all health care services. However, it is clear that these patients have not received the appropriate or consistent mental health care to address these issues.

Prior to the presence of managed care these patients would receive services through various formal and informal networks of care. Mental health specialists served as inpatient consultants, provided psychopharmacologic recommendations and treatment, provided other psychosocial interventions for patients and families, and participated in the biopsychosocial care management of such patients. Care tended to be facility-focused, with its affiliated staff and referral network. Reimbursement was difficult to obtain in most cases, often being less than reimbursement for similar types of medical services. Yet mechanisms to obtain reimbursement were in general no different than for other medical services. An added burden in the Medicaid population was the limitation on use of consultants (any discipline), but this was certainly seen as an equal opportunity barrier. Non-medical services, such as psychology, social work, and nursing support were often incorporated into larger clinical programs and funded indirectly through those programs.

As health care dollars have shrunk and most institutions and medical groups have begun to demand that all departments support themselves, these services have been seriously threatened. Furthermore, even when patients have mental health benefits, there is rarely a specific mechanism to obtain psychiatric or other psychosocial services within the medical setting. This has led to numerous barriers to the access for care. Patients may receive cardiac care at one hospital, but have access to psychiatrists only at a different hospital. If such a patient requires psychiatric evaluation or a family based psychosocial intervention during a stay for an acute medical illness, the providers of that care are often not on staff where the patient is receiving those services. While delivery of care may be threatened, more often the outcome has been that appropriate staff sees the patient but cannot receive reimbursement. If reimbursed is provided, it occurs as a result of significant and time-consuming interactions with the patient's managed care

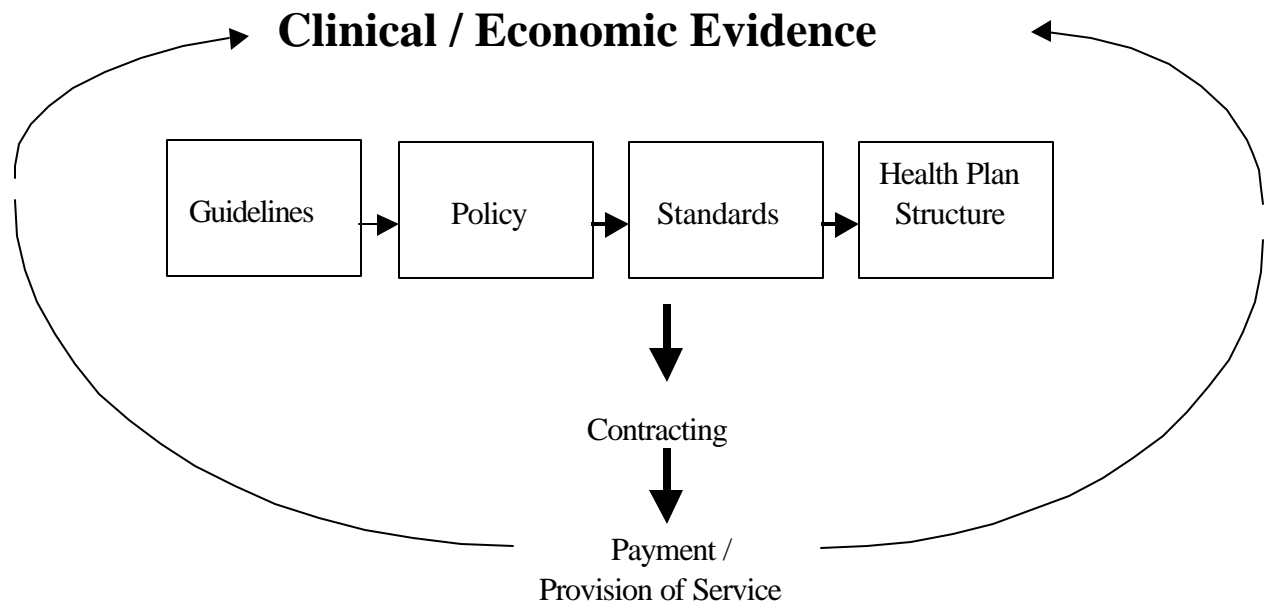
organization and/or mental health carve-out company. In some cases, the behavioral health carve-out has sent in a staff member from their clinical organization, with or without appropriate clinical privileges. Furthermore, in these instances, masters' level social workers, psychologists, or nurses have also been sent, even when the consultation requested by the attending physician was for a psychiatric (physician) consultation.

In essence what has occurred is that these services, in many cases, have neither been intentionally carved in nor carved out. When confronted, health plans and state Medicaid offices have stated that the services should be covered, but no attention has been paid to the administrative or budgetary requirements of such service delivery. Benefit design has not addressed the issue of providing integrated care for this population directly. Medicaid RFP's, quality indicators, and accreditation standards have begun to address the need to show evidence of meaningful integration, yet evidence that benefit design and contracting with individual providers has not addressed the specific issues which can adequately insure that such care can be delivered.

In general, it is thought that a policy full of impacts results from a chain of events originating from usual clinical practice and the practice of evidence based medicine (see figure). Evidence-based medicine then defines guidelines that lead to a demand for services, inclusion in health plans, and the regulation and expectation that services will not only exist but also offer clinical value through standards of accreditation. The documentation and relationship of clinical practice to policy to standards of payment ultimately allows the services to be delivered. Without payment, services are not delivered, policy and standards do not exist, and evidence is limited. Given the "minor" role behavioral health care for medically ill patients plays in the general provision of all health care services, it is possible to postulate that the absence of a mechanism to provide and reimburse for appropriate behavioral health services for patients may simply stem from a lack of awareness and attention. However, once these issues are raised, most administrators and health plan designers have difficulty integrating such services into fragmented care delivery systems. Furthermore, they often approach the economic variables with simplicity and misconceptions regarding the costs of providing such care.

There is clearly a need to drive the process of integration forward, to offer the evidence that the clinical need exists--that the impact of such co-morbidity is both common and far-reaching, and that without clear policy recommendations, access to and reimbursement for care will continue to be significantly limited.

Relationship of Clinical Evidence to Delivery of Services



In order to address these issues, the Managed Care Initiative (funded by the Center for Mental Health Services, the Substance Abuse and Mental Health Services Administration, and the U.S. Department of Health and Human Services) brought together a panel of experts representing the key stakeholders in this area. The panel included representation from several professional groups (nurses, psychiatrists, social worker, and psychologists), as well as individuals representing several viewpoints (patient/family members, managed care, public sector, specialty psychiatry and psychology, and research).

It was the panel's intent to document the evidence for the clinical conditions, their clinical, social and economic impact, and the existence of known treatments and evidence-based appropriate and effective models. To date, policy and standards addressing this issue are limited. The development and implementation of these standards for these services will propel the efforts to insure coverage and payment.

Throughout this document, we will refer to various concepts. As a point of clarification *behavioral health services and mental health care* refers to all services addressing any mental health or substance abuse ailments, regardless of who provides it. The term: *Psychiatric*

disorders generally refers to any disorder which meets DSM criteria. "*Mental illness*" is used more broadly and may refer to those disorders or ailments that meet criterion or which patients may receive some behavioral or mental health intervention.

II. ASSESSMENT, TREATMENT AND EVIDENCE-BASED INTERVENTIONS IN PATIENTS WITH PSYCHIATRIC AND CHRONIC MEDICAL CO- MORBIDITY

A. Introduction

The American population is aging. Today, 12.5% of the U.S. population is 65 or older, but by 2050, 20-25% of our population will be over 65 (Olansky 1993). Advances in modern medicine have decreased mortality but have also resulted in larger numbers of persons surviving and coping with chronic illness. For example, since the early 1960's mortality from coronary artery disease (CAD) has declined in the United States by half (US Dept. of Health and Social Services, 1989); however, currently over 60 million persons in this country suffer from cardiovascular disease. Furthermore, the prevalence of CAD is projected to increase by 30% by 2015 (DeStefano, 1993). Chronic illnesses, such as CAD, can lead to significant disability. The next challenge in medicine will be to find effective ways to improve quality of life and to decrease disability in the large number of patients with chronic medical illnesses. Resources for medical care are limited, and both government agencies and private insurance providers must decide how to apportion resources for the care of the chronically medically ill in the most cost-effective manner. In this paper, we assert that mental health services are an essential, but often overlooked component of quality care for persons with chronic medical illness.

To understand why it is important to provide mental health services for this population, one must first understand the relationship between chronic medical illness and mental illness. First, we will examine this relationship by answering the following questions: 1.) Are psychiatric disorders common in patients with chronic medical illness? and 2.) When chronic medical illness and mental illness coexist, what is the effect on the course and outcome of chronic medical illness? Secondly, we will examine the treatment of psychiatric disorders for patients with chronic medical illness. We will show that although there is clear evidence that the treatment of psychiatric disorders for patients with chronic medical illness can be effective, most patients with medical illnesses do not receive adequate behavioral health treatment. We will examine the special challenges in the treatment of psychiatric illness in the medically ill and present data from studies examining a variety of models of integrated care. We will further present the clinical and economic rationale to support the use of a multidisciplinary team of mental health professionals, including psychiatrists, psychologists, social workers, and nurses, who have expertise in co-morbid illness, from working in close coordination with the medical team. Such integration is necessary to provide the most effective mental health services for this population.

Throughout the paper, we will focus on five of the most common chronic medical disorders in the United States, heart disease, diabetes, chronic obstructive pulmonary disease (COPD), hypertension, and cancer.

B. Is psychiatric illness a significant problem for patients with chronic medical illness?

Repeated studies have shown that not only do depression and other psychiatric disorders occur with increased frequency in patients with chronic medical illnesses (Wells 1988), but that when psychiatric and medical illness co-occur the course and outcome of the medical disorder is adversely effected (Katon 1996, Katon and Sullivan 1990) . Comorbid mental illness in the medically ill is associated with increased frequency and severity of medical symptoms, additive impairment in social and vocational functioning, and increased health care costs (Katon and Sullivan 1990). There is also accumulating evidence, especially in patients with coronary artery disease, that comorbid major depression is associated with increased mortality (Dwight and Stoudemire, 1997).

Prevalence of psychiatric disorders in patients with chronic medical illness.

In a study of over 2500 persons in the community, Wells and colleagues (1988) found that people with one of eight chronic medical illnesses were 41 % more likely to have a psychiatric disorder compared to those who had no chronic medical illness. Anxiety, mood, and substance abuse disorders are found to be especially common in this population. The likelihood of having a co-morbid psychiatric illness appears to increase as severity of medical illness increases (Katon & Sullivan 1990; Katon, 1996). For example, the prevalence of major depression as reported in the National Comorbidity Survey for the general population was 11 % for current disorder (Kessler, 1994). However, additional studies examining the rates of major depressive disorder in the chronic medically ill have reported rates ranging from 9% to 45% depending on illness and treatment setting (tables 1-4). Because depressive disorders are so common in the medically ill, they are the best studied in this population (Katon, 1996). Additional studies are examining the relationships between chronic illness and other disorders such as anxiety disorders, substance use disorders, and psychoses (Sherbourne, 1996; Wells, 1988; Stern ,1977; Derogatis, 1983; Karajgi, 1990; Katon, 1988). In addition, delirium is an especially common problem in the elderly with chronic medical illness and patients who are hospitalized with chronic illness (Levkoff, 1992; Innouye, 1996).

Depression: For many years, clinicians have observed that depression was a common problem for patients with chronic medical illness. Often, however, depressed mood was seen as an expected and normal reaction to serious illness. Recently, systematic investigations using standardized psychiatric interviews and rating scales have demonstrated that a significant number of patients with chronic medical illness develop clinically notable and persistent depressive disorders.

In studies using both rating scales and standardized interviews, depression has been found to occur in 18 to 22% of patients with coronary artery disease (Table 1). This prevalence rate is approximately twice as high as in primary care patients (Hoepfer, 1979; Schulberg, 1985; Blacker, 1987; Barrett, 1988; & Von Korff, 1987) and three to four times as high as in the general population (Kessler, 1994). In most patients with coronary artery disease, depressive disorders do not appear to be transient adjustments to acute episodes of medical illness. Rather depressive disorders for patients with coronary artery disease appear to endure over time. For example, in one study of 200 patients who had recently undergone cardiac catheterization and coronary angiography, 17% of patients met DSM-IV criteria for major depression and 17% met criteria for minor depression (Hance, 1996). One year later, half of the patients with major depression remained depressed or had relapsed. Of the patients with minor depression, 42% went on to develop major depression. Of the 71 patients in the study diagnosed with depression, only six had received treatment for depression. Of these, four reported remission of their depressive symptoms.

The relationship between depression and diabetes mellitus has been more extensively studied (Lustman, 1998). In three studies using standardized diagnostic interviews and six studies using validated depression rating scales, patients with type 1 and 2 diabetes mellitus were found to have significantly higher rates of depressive illness than controls (Lustman, 1998) (Table 2). Prevalence of current depressive disorders in this population range from 8.5 to 27.3% (Table 2). Only one controlled study has failed to show increased prevalence of depression for patients with diabetes (Robinson et al 1988).

The occurrence of depression in cancer patients has also been examined in multiple studies since the 1960's (Table 3). The results of these studies have been less consistent than the studies examining the relationship between depression and other medical illnesses. In studies using standardized interviews, rates of major depression have ranged from 0 to 50%. In twelve studies using standardized rating instruments, 4 to 38% of inpatients and 9 to 24% of outpatients with various types of cancer had moderate to severe depressive symptoms (Table 3). The wide variation in the results of these studies may be due to several factors. First, many studies included patients with varying types of cancer and varying severity (i.e. inpatients versus outpatients). Second, most studies using rating instruments reported prevalence of depressive symptoms rather than depressive disorders such as major depression.

In patients with chronic obstructive lung disease (COPD), the results of the seven available studies all show an elevated rate of depressive symptoms or depressive disorder compared to rates in the general population (Table 4). Studies of depression in patients with hypertension have been inconsistent (Wells, 1988; Simonsick, 1995).

In the general population, depression is more commonly diagnosed in women (Reiger, 1988; Kessler, 1994). This gender difference is seen in certain sub-populations of patients with chronic medical illness, while it has not been found in others. For example, in coronary artery

disease, two studies have shown a higher prevalence of depressive disorders among women than among men (Schleifer, 1989; Stern, 1977). In one study of patients with COPD, twice as many women as men were found to have mood disorders (Karajgi, 1990). Conversely, two studies of mood disorders in diabetes using structured diagnostic interviews failed to find a gender difference in the prevalence of depression (Robinson, 1988; Popkin, 1988). Most studies of depression in cancer patients have also failed to find differences in rates of depression between men and women (Joffe, 1986; Rasavi, 1992; Davies, 1986; Stefanek, 1987; Farber, 1985); however, Plumb and Holland (1981) found that although the prevalence of depression in cancer patients did not differ by gender, women were more likely to have severe depression. The cause for this variation in the gender differences in depression prevalence among different disease groups remains unexplained.

Although studies of depression in various types of medical illnesses have had varied methods, the preponderance of evidence supports the assertion that patients with chronic medical illness are at increased risk for clinically significant depression.

Anxiety: Studies of psychiatric illness in the medically ill have traditionally focused on depressive symptoms; however, several studies of various medical illnesses suggest that anxiety disorders may also occur commonly in the medically ill (Table 5). Methodology has varied, but the studies that used standardized psychiatric interviews have found that in their lifetime, 1.5 to 8% of patients with chronic medical illness experience panic disorder and up to 28% experience clinically significant anxiety disorders (Table 5). In the one study which compared patients with medical illness to medically well persons, patients with chronic medical illness had a 18.2% rate of lifetime anxiety disorder, while medically well persons had a lifetime rate of 12.4%--a statistically significant difference (Wells, 1988)

Alcohol and Substance Abuse: Alcohol and substance abuse are known to cause several chronic medical problems, therefore it is not surprising to find that in a study examining the rate of substance use disorders in the general population, patients with chronic medical illness were significantly more likely to have alcohol or substance use disorders (Wells, 1988). Prevalent rates of alcohol and substance abuse in primary care outpatients range from 5 to 20%. In a study comparing general medical outpatients and patients in specialty mental health care, rates of current and lifetime alcohol use disorders in patients with hypertension, diabetes, and heart disease were similar to rates of alcohol dependence in patients being treated for depression (Sherbourne, 1993). However, patients with diabetes were less likely than other groups to have current alcohol consumption.

Delirium: Delirium is a common but frequently undiagnosed neuropsychiatric disorder in the medically ill, especially the elderly (Levkoff, 1992; Innouye, 1996). Delirium is a transient syndrome characterized by mental status changes of acute onset and fluctuating course, inattention, disorganized thinking, altered level of consciousness, and disorientation. It is most commonly caused by an underlying medical illness or by medications. Delirium occurs in

10-35% of hospitalized elderly patients (Levkoff, 1992; Innouye, 1996). Although delirium is often considered to be a transient complication in persons with medical illness, in the elderly it may become persistent. Levkoff and colleagues (1992) evaluated 325 elderly patients admitted to a teaching hospital and found that 10.5% of patients met diagnostic criteria for delirium on initial evaluation and an additional 31.3% developed delirium while in the hospital. By time of discharge, only 4% of patients experienced full resolution of delirium symptoms that had developed during hospitalization. Furthermore, up to 21 % of patients still met DSM-III criteria for delirium six months after discharge from the hospital. In several studies examining risk factors for delirium (Innouye, 1996; Thomas, 1988; & Schor, 1992), it appears that patients with central nervous system disorders, fractures, digestive disorders, and infectious disease are at particular risk for delirium, while patients with circulatory system, respiratory system, cancer, and renal disease are not at increased risk for delirium. In all disease groups, however, more debilitated and more severely ill patients are at higher risk for delirium (Innouye, 1996; Thomas, 1988; & Schor, 1992). Specific risk factors include: patients older than 80; patients with dementia; previously institutionalized patients; patients with poorly controlled pain; use of physical restraints; malnutrition; greater than three medications added during hospitalization; and any iatrogenic event (such as transfusion reactions, volume overload, or urinary tract infection following instrumentation) occurring during hospitalization (Innouye, 1996; Thomas, 1988; & Schor, 1992).

Other psychiatric disorders: Rates of psychotic disorders and bipolar disorder in patients with chronic medical illness have not been extensively studied.

Prevalence of Medical Disorders in Mentally Ill Patients:

There have been no studies that compare prevalence of medical disorders in patients with mania to a control group from the general population. The few studies that exist suggest that patients with bipolar disorder may have fewer medical problems than patients with unipolar depression, but more than patients with schizophrenia (Strakowski, 1994). However, there is also some evidence that at least in bipolar women, co-morbid medical problems are common and often go undetected (D'Ercole, 1991). Studies examining the rates of medical co-morbidity in patients with schizophrenia have been methodologically limited; however, taken together they suggest that gastrointestinal cancer, cardiovascular disease, and infectious disease may be more common in patients with schizophrenia than in the general population, while lung cancer and rheumatoid arthritis are less common (Tsuang, 1983). Despite this apparent increase in co-morbidity compared to the general population, it is suggested that patients with schizophrenia may have less medical co-morbidity than patients with mood or anxiety disorders (Gierz, 1993; Vieweg, 1995). Studies of patients with chronic mental illness have also shown that they have disproportionate rates of health risk behaviors such as smoking, drinking, and failure to use safe sex methods. Recent studies suggest that patients have significantly higher rates of HIV seropositivity and AIDS (Elliot, 1998).

C. Impact of co-morbid psychiatric illness in patients with chronic medical illness.

There is mounting evidence that psychiatric disorders significantly impact the course and outcome of medical disorders. Not only does psychiatric illness, especially depression, appear to effect the severity of the symptoms that patients experience, the cost of their care, and their quality of life, but the presence of a psychiatric disorder may also increase mortality from chronic medical illness (Katon, 1996; Katon & Sullivan, 1990; Black & Makides, 1999).

Morbidity and Mortality: Among the most important findings in the study of depression in the medically ill is that patients with depression are more likely to suffer premature death from several medical illnesses compared to patients without depression (Bruce & Leaf, 1989; Aroma, 1994; Murphy, 1988; Rovner, 1991). In a study of 3,007 adults aged 50 and older (Bruce & Leaf, 1989), individuals with major depression were 4.3 times more likely to die of non-suicide related causes over the next 15 months compared to those without depression. In over two-thirds of subjects, the cause of death was cardiovascular. Similarly, in a Finnish community sample of 8,000 persons, at 6.6 year follow-up the risk of coronary death was increased in subjects with depression whether or not they had heart disease at baseline (Aroma, 1994). Murphy and colleagues (1988) found that even after controlling the severity of medical illness, older persons with depression have a higher risk of death. In elderly nursing home residents, the likelihood of death over a one year period was increased by 59% in persons with depression compared to persons without depression, even after controlling for severity of medical illness (Rovner, 1991). In older Mexican Americans, the presence of depressive symptoms was associated with increased mortality for patients with diabetes, cardiovascular disease, hypertension, stroke, and cancer (Black & Markides, 1999).

The relationship between increased mortality and depression has best been studied in cardiovascular disease. Frasure-Smith and colleagues (1993, 1995) found that patients with major depression after an acute myocardial infarction (MI) were four times more likely to die over the next six months, compared to patients without depression, even after they controlled for the effects of impaired left ventricular function and a history of previous MI. In a group of patients undergoing cardiac catheterization, major depression was the best predictor of significant cardiac events (MI, angioplasty, coronary artery bypass graft, or death) during the following twelve months, even though there were no differences in cardiac disease severity between depressed and non-depressed patients at baseline (Carney, 1988). The magnitude of the effect of depression on mortality was greater than that of impaired left ventricular function, severity of coronary artery disease, or smoking. The effect of depression on cardiac mortality is even more pronounced in patients with arrhythmias. The Cardiac Arrhythmia Pilot Study (CAPS), found an increased twelve month mortality rate in depressed patients with arrhythmias versus non-depressed patients with arrhythmias (Ahern, 1990). Frasure-Smith and colleagues (1995) found that depressed patients with premature ventricular contractions had a mortality rate 30 times greater than patients without depression. Thus, not only is depression a significant risk factor for

cardiovascular mortality, the impact of depression on mortality may equal or surpass the effects of known physiological risk factors for ischemic heart disease.

Like depression, anxiety disorders have also been shown to increase cardiovascular mortality. In one study of 33,999 male health professionals aged 42-77, men with high levels of self-reported phobic anxiety were three times more likely to die from cardiovascular causes than men with the lowest levels of anxiety symptoms (Kawachi, 1994a). All of the excess risk of cardiovascular death was accounted for by sudden death. Among a group of 2,280 men ages 21-80, the risk of developing coronary artery disease over the 32 year study period was almost doubled in those persons reporting two or more anxiety symptoms (Kawachi, 1994b). Risk of sudden death was four times greater in those with anxiety symptoms.

The mechanisms by which depression and anxiety increase the rate of mortality from coronary artery disease appear to be multifactorial. First, there is evidence that depression may cause decreased compliance with medications and self-care recommendations such as smoking cessation (Carney, 1988, 1995). In addition, there may be a physiological basis for increased cardiac mortality in patients with depression and anxiety. Patients with depression and anxiety may be at increased risk for ventricular arrhythmias and sudden death due to alterations in the autonomic regulation of heart rate (Dwight & Stoudemire, 1997). In addition, abnormalities in the neurotransmitter serotonin, which is thought to play a role in the etiology of depressive and anxiety disorders, may cause increased blood clotting through action on platelets (Dwight & Stoudemire, 1997).

Alcoholism has been associated with increased mortality especially in older populations (Moos, 1994; Callahan, 1997). In a primary care population, patients with alcoholism had significantly higher mortality rates than patients without alcoholism even when other factors such as age, race, gender, and smoking history were accounted for (Callahan, 1997). In particular, alcoholic patients were at risk for death due to cancer, and cirrhosis. A study of patients in the Veteran's Administration medical care system showed that patients with substance abuse disorders were 2.64 times more likely to die than age and sex matched persons in the general population, and that alcoholic patients with a variety of chronic illnesses such as neoplasms, cirrhosis, blood disorders, endocrine and metabolic disorders, and respiratory disorders were at particularly high risk for mortality (Moos, 1994). Also, risk for death increased with increased number of previous medical admissions and outpatient medical visits. Even though accidents and injuries are often thought of as causing a large percentage of excess mortality in patients with alcoholism, chronic illness such as, cancer, liver disease, blood disorders, and respiratory disorders, is more highly associated with increased mortality than injuries in this sample.

Quality of life and functional disability: With advances in modern medicine, the threat of premature death from medical illnesses such as heart disease has been decreased. Because of this, the focus of treatment for many chronic illnesses has shifted to include not only prevention of death, but also improving the functioning and well being of patients with chronic

illness. It is clear that co-morbid psychiatric disorders can have an enormous impact on both the physical and mental functioning of patients with medical illness (Wells, 1989; Sullivan, 1997; Stern, 1977; Hays, 1995; Von Korff, 1992; Ormel 1993). Wells and colleagues (1989) showed that patients with psychiatric illness perceived their general health as poorer and had greater limitations in physical functioning than patients who did not have psychiatric illness, even when controlling for presence of chronic medical conditions and demographic factors. When psychiatric disorders and medical illness co-existed, the maladaptive effect on physical, social, and vocational functioning were additive. Even in patients who do not meet full criteria for disorders such as major depression and panic disorder, depressive or anxiety symptoms can produce significant impairment in functioning such as days lost from work and days of impaired functioning (Johnson, 1992).

In some cases, the effect of psychiatric illness on functioning in the medically ill may be greater than the effect of the medical illness itself. Sullivan and colleagues (1997) found that depressive symptoms measured at initial diagnosis of coronary artery disease were more highly correlated with impaired functioning both at baseline and at twelve month follow-up than the number of coronary arteries stenosed at baseline angiogram. In another study of patients with coronary artery disease, only 38% of patients with major depression returned to work three months after an acute MI, while 63% of non-depressed patients returned to work, even though the two groups did not differ in the severity of their heart disease (Stern, 1977).

The association between psychiatric disorders and functional disability in the medically ill persists over time. In a two year follow-up study of patients in the general medical care sector, patients with depression still had significant functional limitations two years after initial evaluation (Hays, 1995). In addition, depression and functional disability appear to change synchronously over time; as depressive symptoms improve so do measures of functional disability (Von Korff, 1992; Ormel, 1993).

Different psychiatric disorders may cause different patterns and severity of functional disability (Spitzer, 1995). In primary care patients, depressive disorders were associated with highly significant decrements in all areas of functioning including: physical functioning, perceptions of bodily pain, role functioning, perception of general health, social functioning and perception of mental health (Spitzer, 1995). In contrast, anxiety disorders were most highly correlated with decreased social and mental health functioning (Spitzer, 1995), although they were still associated with mild decreases in health related quality of life. This finding was replicated in a study of anxiety in patients with chronic medical illnesses (Sherbourne, 1996) in which anxiety had the largest impact on functioning in patients with hypertension and diabetes. However, in patients with heart disease who already had significantly impaired functioning, the effect of anxiety on functioning was not significant. Patients with somatoform disorders have reported problems primarily with physical and health-related functioning, while eating disorders have been associated with impairment in perceptions of bodily pain and social functioning (Spitzer, 1995).

The effect of alcohol abuse and dependence on functioning in patients with chronic illness is unclear (Wells 1990; Spitzer, 1995). In primary care patients, alcohol abuse and dependence were not associated with significant functional impairment (Spitzer, 1995). For patients with chronic medical illness, a history of past alcohol abuse was associated with poorer functioning; however, current alcohol use was not associated with poorer functioning (Wells, 1990). Investigators have speculated that this might be due to the tendency of patients with serious medical illness to discontinue alcohol use.

Symptom amplification: Patients with chronic medical illnesses often have persistent symptoms such as pain and fatigue. Psychiatric illnesses such as depression and anxiety, and psychological distress can often interfere with patients' abilities to cope with or habituate to these chronic symptoms (Katon & Sullivan, 1990). For example, Lustman and colleagues (1988) showed that in diabetic patients, 9 of 11 symptoms commonly associated with poor glycemic control (such as polydipsia, and polyuria) were more highly correlated with diagnosis of depression than with physiologic measures of glycemic control such as hemoglobin A_{1c}. Similarly, in studies of inflammatory bowel disease, patients with major depression or anxiety disorders have been shown to have significantly more gastrointestinal complaints than IBD patients without psychiatric illness, even when biological markers of disease severity were controlled for in the analysis (Walker, 1996).

In addition to causing increased complaints of disease related symptoms, patients with depression or anxiety often have greater numbers of medically unexplained symptoms in other organ systems (Katon, 1991; Kroenke, 1994). Increasing numbers of unexplained physical symptoms are associated with increasing severity of depressive and anxiety symptoms and increasing number of current psychiatric disorders (Katon, 1991).

Of the many symptoms commonly experienced by patients with chronic medical illness, there is a particularly close relationship between pain and depression (Katon & Sullivan, 1990). Studies have shown a linear relationship between pain complaints and depressive symptoms, with patients having greater numbers of pain complaints being more likely to have depressive disorders (Dworkin, 1990). For many years it has been debated whether in chronic medical illness depression causes pain or pain causes depression. It appears in fact that the relationship is bi-directional. Preexisting pain has been linked to later development of depression and conversely, preexisting depression has been associated with the development of pain complaints (Magni, 1994). The strength of the association between pain and depression is underscored by the effectiveness of antidepressants in the treatment of pain disorders (Katon & Sullivan, 1990). In several studies, pain relief has been shown to occur in relationship to relief of depressive symptoms as well as independent of antidepressant effect (Katon & Sullivan, 1990). It appears that norepinephrine and serotonin are involved not only in mood regulation but also in pain sensation (Katon & Sullivan, 1990).

Other symptoms of chronic illness also improve when co-existing depression is treated (Katon, 1996). In two controlled double-blind studies, when patients with COPD and chronic tinnitus who also had major depression were effectively treated with antidepressants, they reported that they felt better able to cope with their illness and their symptoms of medical illness were less distressing even though objective measures of illness severity had not changed (Sullivan, 1993; Borson, 1992).

Treatment Adherence: In addition to learning to cope with aversive symptoms, patients with chronic medical illness must often make lifestyle changes (e.g. increase in exercise, changing diet, and quitting smoking) and adhere to complicated medication and treatment regimens. Psychiatric illness can often make it more difficult for patients to adhere to the recommendations of their medical care providers (Katon & Sullivan, 1990). For patients with diabetes, increasing severity of depression is associated with decreased compliance with dietary, exercise, and glucose monitoring recommendations (SurrIDGE, 1984). Depressed patients with coronary artery disease are less likely to take medications as prescribed compared to patients with coronary artery disease alone (Carney, 1995). Furthermore, patients who have depression just after having an acute MI are more likely to drop out of cardiac rehabilitation programs than non-depressed patients (Blumenthal, 1982). Depressed patients with coronary artery disease are more likely to smoke than those without depression (Carney, 1988), and depressed patients have been found to be less likely to discontinue smoking over a year period compared to smokers without a history of depression (Anda, 1993).

Increased Health Care Utilization: In patients with chronic medical illness, psychiatric disorders are associated with increased health care costs not only in the mental health care sector, but in every aspect of medical care (Unutzer, 1997; Simon, 1995 & Callahan, 1997). Compared to patients without psychiatric disorders, patients with psychiatric disorders have increased costs in primary care, medical specialty, medical inpatient, pharmacy, and laboratory services (Unutzer, 1999; Simon 1995; & Callahan, 1997).

Three rigorous studies show the relationship between depression and increased medical costs clearly. First, Callahan and colleagues (1997) studied 1,711 elderly general internal medicine outpatients with an average of 4 chronic medical conditions. Patients with depression had mean total outpatient costs of \$1,210 over a 9-month period, while patients without depression had mean costs of \$752. In a group of 2,588 elderly patients in a staff model HMO with an average of 1.25 chronic medical conditions, Unutzer and colleagues (1999) found that even after adjusting for severity of medical illness, patients with depression had costs of \$1510 per year compared to \$1129 in non-depressed patients. In a study comparing 6,257 middle aged HMO patients diagnosed with depression to 6,257 HMO patients without recognized depression, depressed patients had significantly higher costs in all areas of health care after adjusting for severity of chronic illness in both groups (Simon 1995). In both elderly and mixed-aged HMO populations, the relationship between depression and increased health care

utilization persisted as severity of co-morbid medical illness increased (Unutzer, 1999; Simon, 1995).

Not only are depressed patients more likely to use medical services, but patients who are high utilizers of medical services are more likely to have depression and anxiety. In a study in a large staff model HMO, 10% of the highest utilizing patients were found to use more services than the 50% of the lowest utilizers of care in the HMO clinics (Katon, 1990). In the group of high utilizers, two-thirds had chronic medical illnesses and one-half had significant psychological distress. Of the distressed patients, two-thirds had recurrent major depressive episodes and one-third had dysthymia.

The correlation between psychiatric disorders and increased medical utilization has also been shown in studies of medical inpatients (Levenson, 1990; Mayou, 1988; Saravay, 1996). For example, medical inpatients with anxiety or depressive symptoms have increased length of hospital stay after controlling for severity of medical illness (Levenson, 1990). Co-morbid anxiety and depression are also associated with increased rates of readmission to medical and surgical inpatient units (Mayou, 1988; Saravay, 1996). There is convincing evidence that not only is psychiatric illness common in patients with chronic illness, but that these co-existing psychiatric illnesses have a significant negative impact on illness outcome and cost of treatment. Next, we will examine the effectiveness of mental health treatment for patients with chronic medical illness and the quality of mental health care usually provided to patients with medical illness.

D. Treatment of psychiatric disorders in patients with chronic medical illness.

We have shown that not only are psychiatric disorders such as depression and anxiety common in persons with chronic medical illness, but that depression and anxiety have a significant negative impact on patient outcome and quality of life. The next important issue to address is whether there are effective treatments for depression and anxiety in the medically ill, and whether the treatment of mental illness in the medically ill results in improvement in functioning and well being. While there is widely based clinical support for the use of pharmacologic and non-pharmacologic treatments (including all psychotherapy modalities), the literature is limited and reflects a lack of well-controlled studies for both modalities.

Efficacy of antidepressant treatment in patients with medical illness.

Depression is one of the most common psychiatric illnesses in patients with medical illness, and because antidepressant medication is the most commonly available treatment for depression, it is important to understand the efficacy and safety of the use of antidepressant medications in the medically ill. In a meta-analysis of 12 randomized controlled trials of antidepressant treatment in the medically ill, pooled data on 576 patients showed that depressed patients who were treated with antidepressants were three times more likely to experience

improvement depressive symptoms compared to patients treated with placebo (Gil, 1998). There have been several randomized controlled trials of antidepressant treatment of depression in patients with coronary artery disease, COPD, cancer, and diabetes (Table 5). The three randomized controlled trials of antidepressant treatment of depression in patients with coronary artery disease show that both the older tricyclic antidepressants (such as nortriptyline and doxepin) and the newer selective serotonin reuptake inhibitors (such as paroxetine) are effective in treating depression in this population (Veith, 1983; Finkel, 1996; Roose, 1997). In two populations of depressed cancer patients, the antidepressant mianserin, a tetracyclic antidepressant not available in the United States, was found to be significantly more effective than placebo in relieving depressive symptoms (Costa, 1985; van Heerigen, 1996). The one controlled study in patients with diabetes showed that treatment with nortriptyline lead to significantly greater improvement in depressive symptoms compared to placebo (Depression Guideline Panel, 1993). Holland and colleagues (1998) found that desipramine and fluoxetine were equally effective and well tolerated in improving depressive symptoms and quality of life in women with advanced cancer. In patients with COPD, a small trial of 12 patients showed no improvement in depressive symptoms after a 6 week trial of doxepin (Light, 1985); however, a larger study of 36 patients with COPD and depression showed that nortriptyline was significantly more likely to lead to sustained improvement in depressed mood compared to placebo (Borson, 1992). Thus, with one exception, studies of antidepressant treatment in patients with a variety of chronic medical illnesses have consistently found that antidepressants are effective in treating depression, just as they are in medically healthy populations.

Not only are antidepressants effective in relieving symptoms of depression in patients with chronic medical illness, but improvement in depressive symptoms is often associated with improvements in disease related distress and functioning. In a group of depressed patients with COPD, treatment with nortriptyline not only was associated with significant improvement in depression, but also marked improvements in certain respiratory symptoms, overall physical comfort, and day to day functioning (Borson, 1992). These changes in symptom reporting and functional disability occurred even when objective measures of disease severity were unchanged during the course of antidepressant treatment. For patients with diabetes, improvement in depressed mood after treatment with nortriptyline was associated with a 1 % reduction in glycosylated hemoglobin levels, a measure of glycemic control (Lustman, 1998). Although a 1 % reduction in glycosylated hemoglobin seems small, it is estimated that such an improvement in glycemic control could lead to a one third reduction in the rate of the progression of diabetic retinopathy, a major complication of diabetes (Lustman, 1998). In patients with cancer, there are no controlled trials that examine the effects of antidepressant treatment on quality of life and functioning; however, one open trial suggests that adequate treatment of depression with a tricyclic antidepressant is associated with improvement in psychosocial adaptation (Evans, 1988).

Safety

Even though antidepressants have been shown to be effective in patients with chronic illness, there have been concerns whether these agents are safe in patients with medical illness. In

all patients with chronic medical illness, physicians must be aware of possible interactions between antidepressant medications and medications used to treat other medical problems.

The safety of antidepressants in patients with heart disease has been a particularly active area of research. Because in overdose, tricyclic antidepressants have toxic cardiac effects, there had long been concern that these agents were not safe for cardiac patients even in therapeutic doses. However, by the mid- 1980's the preponderance of the research showed that tricyclic antidepressants were safe in patients with cardiac disease--except in three groups: patients with a specific abnormality in cardiac conduction called bundle branch block, in the immediate post MI period, or in elderly patients with severe congestive heart failure (Shores, 1998). Orthostatic hypotension is a risk with tricyclic antidepressants, especially in those with severe congestive heart failure. Preliminary studies indicate that the newer selective serotonin reuptake inhibitors are safe in patients with heart disease (Roose, 1998 a,b; Shapiro, 1997) but prescribers must be cautious because SSRIs may interact with several medications commonly prescribed to patients with heart disease (Dwight & Stoudemire, 1997).

The safety of antidepressants has also been of concern for patients with diabetes. The tricyclic antidepressants have the potential for causing weight gain, orthostatic hypotension (a dysregulation of blood pressure), and increases in blood glucose (Lustman, 1998). On the other hand the SSRIs can sometimes cause gastrointestinal distress, sexual dysfunction, and possible effects on the blood glucose (Lustman, 1998). It appears that the risk of hematological side effects of psychiatric medications is rare and therefore antidepressants should not be withheld from cancer patients in need of treatment (Lesko, 1990); however, patients on complex cancer medication regimens need careful monitoring of potential drug:drug interactions when treated with antidepressants.

Efficacy of Psychotherapy and Behavioral Treatments: The role of psychotherapy and psychosocial support groups for patients with chronic medical illness has become an active area of investigation. Most of the published studies have not examined the effects of these interventions on patients with chronic medical illness and co-existing depression, but rather have examined the effect of psychosocial interventions on quality of life and survival in medical illness.

In patients with cancer, recent reports have shown the dramatic benefits of psychosocial interventions. In a group of breast cancer patients, patients who participated in a weekly supportive group therapy lived twice as long as matched cancer patients who received the same cancer treatment but who did not attend group therapy (Spiegel, 1989). While there is recent discussion in the literature that casts doubt on the robustness of this relationship (Fox, 1998), other studies have shown that psychosocial interventions can lead to positive physiological changes in patients with cancer. Patients with melanoma can experience an increase in natural killer cell activity as well as increased survival after a course of group therapy (Fawzy, 1990, 1993).

The effect of psychosocial treatments in patients with COPD has been mixed. Several studies have examined the effect of comprehensive rehabilitation programs on both functioning and on mood. A majority of these studies has shown improvement in anxiety and depressive symptoms (Borson, 1998). Conversely, trials of more focal interventions have shown that formal training in relaxation, stress management, dyspnea tolerance, and cognitive behavioral psychotherapy have not lead to significant improvements in depressive or anxiety symptoms (Borson, 1998).

The success of psychosocial treatments in the treatment of depression in patients with cardiac disease has also been mixed. A recent meta-analysis of psychosocial and rehabilitation programs showed that regardless of the type of psychosocial intervention, these interventions significantly decreased mortality and psychological distress (Linden, 1996). Blumenthal (1997) has also shown that mental stress management programs can reduce the rate of cardiac events in patients with stress induced ischemia. However, neither the interventions in the meta-analysis nor the intervention by Blumenthal et al was designed to specifically include patients with depressive disorders. Recently Frasure-Smith et al (1997) reported that an intervention for depressed patients who had recently had a MI did not result in improved mood or survival. The intervention which included scheduled phone calls from a cardiac nurse to assess psychological distress and home visits from a cardiac nurse resulted in no improvement in mood in men. For women in the intervention group mortality was actually 2 times higher than in the control group. These results are puzzling and suggest that nonspecific psychosocial interventions may not be helpful in depressed cardiac patients. No studies of specific psychotherapeutic interventions, such as cognitive behavioral therapy in depressed cardiac patients have been published. Researchers have found that cognitive behavioral therapy is effective in the treatment of major depression in patients with diabetes (Lustman, 1998).

In summary, our understanding of the effectiveness of psychosocial and psychotherapeutic interventions in patients with chronic medical illness remains incomplete. Further studies are needed in patients with clinical diagnoses of depression with specific therapies such as cognitive behavior therapy and interpersonal therapy, which have been shown to be effective in the treatment of medically healthy patients with depressive disorders.

E. Quality of Care for Depression in the Medically Ill

We have established that depression is common among patients with chronic medical illness and that antidepressants and some psychotherapy treatments are effective for the treatment of depression in medically ill patients. Several studies have shown that at least one half of patients with psychiatric disorders receive their only mental health care from the general medical care sector (Reiger 1993, Wells 1994). In addition, recent efforts to control specialty medical costs have resulted in increasing reliance on primary care providers to care for psychiatric disorders such as depression and anxiety (Wells 1994). However, there is evidence that depressed patients in the general medical sector may not be receiving adequate treatment (Wells 1994, Katon, 1997; Koenig, 1997). Typical treatment for depression provided in primary care may be inadequate by several measures including: rates of detection, frequency of follow-up, rates of referrals for counseling, and adequacy of antidepressant dosage.

Detection: Unfortunately, only about half of primary care patients with major depression are accurately diagnosed (Eisenberg, 1992). This may be due to the fact that many depressed patients with chronic medical illnesses present to their primary care physicians not with initial complaints of depressed mood, but rather with increased complaints of physical symptoms (Katon, 1997). Studies have shown that patients who present to their primary care provider with psychological symptoms of depression or anxiety, such as depressed mood, hopelessness, and suicidal thoughts, are almost always accurately diagnosed (Kirmayer, 1993). However when patients present with medically unexplained somatic symptoms or symptomatic worsening of chronic medical illness the diagnosis of major depression is often missed (Kirmayer, 1993). In a recent study, only 6% of clinically depressed medical oncology patients were recognized as depressed by their treating oncologist (Newell, 1998). There is evidence from the medical outcomes study that patients in prepaid insurance plans are significantly less likely to have their depression detected by a provider than depressed general medical patients in fee for service plans (Wells, 1994).

Anxiety disorders such as panic and generalized anxiety disorder are also frequently missed in primary care. One study estimated that within an HMO population as many as 10% of all patients had undiagnosed anxiety disorders (Fifer, 1994). In another study, 61 % of primary care patients with panic disorder were not accurately diagnosed (Spitzer, 1994).

Frequency of visits: In a large study of patients in both fee-for-service and prepaid insurance plans in six geographic areas of the United States, patients with a psychiatric diagnosis under the care of a mental health specialist had an average of ten visits per year, whereas patients of general medical providers had only one visit per year with a mental health diagnosis or procedure (Wells 1994). Even if one assumes that the patients of mental health specialists may have more severe disorders than those seen by primary care physicians, this difference in frequency of visits is striking. There also appear to be some differences in amount of care

delivered between fee for service and prepaid insurance plans. In the Medical Outcomes Study sample, patients diagnosed with depression in prepaid plans were only two thirds as likely as matched fee for service patients to have been counseled about depression for three or more minutes (Rogers, 1993). Elderly depressed patients are even less likely than younger depressed patients to see their primary care doctor more than two times for depression or to receive adequate dosages and duration of antidepressant treatment (Unutzer, 1999).

Adequacy of antidepressant dosage: Several studies have shown that depressed patients in both outpatient and inpatient general medical settings do not receive adequate doses of antidepressants. The Agency for Health Care Policy and Research (AHCPR) and others (Katon, 1992) have made recommendations about adequacy and duration of antidepressant treatment of depression in primary care. Of those primary care patients whose depression is recognized, only 40 to 60% receive antidepressant treatment that meets AHCPR guidelines (Katon, 1997). Of those who do receive antidepressants, 40% received an inadequate dose (Wells, 1994). In one study of elderly depressed patients admitted to a general medical hospital (Koenig, 1997), only 40.5% of patients diagnosed with depression received an antidepressant during hospitalization or the 11 month follow-up period. One-quarter of depressed patients was treated only with benzodiazepines, a class of antianxiety medications. The most commonly prescribed antidepressant was amitriptyline, a tricyclic antidepressant that is highly sedating and may have serious side effects in medically ill elderly patients. The mean dose of antidepressants prescribed was subtherapeutic, even allowing for the reduced dosages usually recommended in elderly medically ill patients. These investigators also found that if depression was not detected and treated during an inpatient hospitalization, patients were unlikely to receive treatment at all. Of the depressed patients in the study who did not receive antidepressants while in the hospital, only 11% received an antidepressant in the subsequent 11 months often at subtherapeutic doses. Another study examining usual care for depression in a staff model HMO found that elderly primary care patients, many of whom had chronic medical illnesses, were less likely to receive adequate antidepressant dose than younger depressed patients, even after controlling for differences in medical illness severity (Unutzer, 1999).

Referral for counseling: For those patients who do not wish to be treated with antidepressants, effective alternatives, such as various forms of psychotherapy, exist. However, depressed patients, in general medical practice, are even less likely to receive referrals for counseling than to receive an antidepressant (Katon, 1997). Less than 10% of depressed primary care patients receive specific psychotherapies found to be effective in the treatment of major depression (Katon, 1997). In a study of a staff model HMO, elderly patients, many of whom had chronic medical illnesses, were less likely than younger depressed patients to be seen by a mental health specialist (Unutzer, 1999). Only about 1% of all costs for depressed elderly primary care patients is mental health costs compared to approximately 10% in younger depressed patients. (Unutzer, 1997; Simon, 1995).

F. Outcomes in the treatment of psychiatric disorders in the general medical sector

Do inadequacies in the quality of treatment of psychiatric disorders in primary and general medical care sectors lead to poor outcomes for patients? It appears that regardless of quality of treatment, patients with depression tended to improve over time; however, patients appear to have considerable chronic depressive symptoms rather than full recovery (Wells, 1994). For example, in the Medical Outcomes Study, patients initially diagnosed with depression in the general medical setting had an average of 11 to 12 symptoms of depression (out of 30). In the second year of follow-up these patients had an average of 6 to 7 symptoms of depression (Wells, 1994). Fewer than two symptoms were considered fully recovered. For depressed patients in general, there did not seem to be significant differences in outcomes between fee for service patients and prepaid plan patients (Wells, 1994); however, in the third of depressed patients with the most severe depressive illness, outcomes were better in fee-for-service plans. The authors speculated that this may be due to the fact that even though certain measures of quality of care were better for patients in fee-for- service plans compared to prepaid plans, the overall quality of care for depression in both settings was still inadequate compared to current standards of care (Wells, 1994).

Primary care patients with anxiety and mixed anxiety and depression appear to fair even worse. In a study of primary care patients with anxiety, depression or both, one year after diagnosis only one third of patients who were initially diagnosed with an anxiety or depressive disorder were fully recovered and only 16% of patients with mixed depression and anxiety were fully recovered (Ormel, 1993). Three and one-half years after initial diagnosis, 47% of depressed patients were fully recovered, but only one-third of patients with anxiety or mixed anxiety and depression were fully recovered. Residual anxiety symptoms were also associated with significant reduction in functioning in family role, social role, and occupational role throughout the 3 1/2 year follow-up period (Ormel, 1993).

G. Improving Outcomes in Primary Care Psychiatry

Previous trials to improve depression care in primary care settings: Three randomized controlled trials have examined varied methods of improving the quality of care provided for depressed patients in the primary care setting. Katon and colleagues (1997), tested the effectiveness of two models of care in a staff model HMO. In the "Consultation Liaison Primary Care Collaborative Model" patients with depression received two visits with a psychiatrist in the primary care clinic and two visits with the primary care physician within in the first six weeks of treatment. The psychiatrist assisted by educating the patient about depression and by advising the primary care physician in the management of treatment-resistant depression. Physician visits were supplemented by educational materials for both patients and their family members, a half-day workshop for primary care physicians on the diagnosis and treatment of depression, and automated pharmacy data for primary care physicians to aid in monitoring patient compliance. In the second model "Brief Therapy in Primary Care," patients received four to six visits with a psychologist, who provided medication monitoring and cognitive behavioral

therapy. A psychiatrist supervised both the psychologist and the primary care physician in patient assessment and treatment. Both interventions were associated with significant improvements in depressive outcomes in patients with major depression compared to patients treated with usual care (Katon, 1997). Approximately 70% of intervention patients with major depression compared to 40% of usual primary care controls improved 50% or more on depression scores at four-month follow-ups. In addition, despite the multifaceted nature of both interventions, the cost of providing collaborative care was actually less per successfully treated patient than usual care.

Schulberg and colleagues (1996) randomized primary care patients to guideline based antidepressant treatment, guideline based interpersonal psychotherapy, or usual primary care and found that 70% of patients who completed the interventions were significantly improved after eight months, compared to the 20% of patients in usual care. Mynors-Wallis and colleagues (1995) found that patients with major depression who received problem solving therapy or active medication treatment with amitriptyline, had better outcomes than those receiving placebo and supportive visits.

III. MODELS OF CARE INTEGRATION

It is clear that co-morbid psychiatric and medical illness is common and that effective, evidence based treatment exists for this patient population. However access to the most effective treatments is clearly lacking. The clinical and economic impact of this absence of care is significant. When co-morbid psychiatric illness is present in the medical setting, it can be associated with a 20 to 50% higher total annual health care bill per patient depending on the type of concurrent illness. Evidence from several outcome studies, suggests that much of this economic burden can be reversed if high utilizing patients with the most common comorbid psychiatric disorders in medical practice, i.e. depression (Von Korff, 1992), anxiety (Salvador-Carulla, 1995), substance abuse (Holder & Blose, 1992), and somatization (Smith, 1986; Rost, 1994; Smith, 1995), are successfully treated through evidence-based interventions. In fact, total health care expenses can be substantially reduced even after one adjusts for the annual cost of appropriately administered, guidelines-based psychiatric treatment in these patients (McDonnell & Douglas, 1989).

Despite this fact, traditional medical practice and our current health care delivery system, which segregates medical and mental health care, discourages the identification and treatment of psychiatric illness in the medical setting. Even when mental health interventions are implemented they are usually not integrated with other medical care and are not based on therapeutic approaches that would be expected to change clinical or economic outcomes.

Currently, there are three areas in which the medical and mental health service delivery systems are poorly integrated. General medical and mental health treatment are administered in separate locations, medical and mental health professionals communicate little about the

diagnoses and treatment of common patients, and reimbursement for service comes from independent funding pools. This practice has been magnified in the current managed care environment where behavioral health "carve out" forces the "dis-integration" of care; irrational, cost-conserving intervention packages; and poor patient outcomes.

Many health plans and providers have attempted to address the dis-integration of mental health and physical health through a variety of mechanisms primarily focusing on the co-location of mental health professionals in the primary care setting or disease management strategies. Co-location usually involves an individual with experience in mental health, usually a psychologist or social worker, spending some or all of their clinical time in the primary care setting. Furthermore these reports are anecdotal and have not outlined either clinical or economic outcomes of such co-location. Disease management strategies are operationalized in most settings as the utilization of a mental health screening form coupled with algorithm based treatment. While in some settings referral mechanisms to mental health treatment are outlined, this care is not truly integrated and does not offer additional components of evidence based appropriate assessment or treatment.

A conceptual framework for considering integration across multiple dimensions can be utilized in further understanding these issues. A multiple-site national project examining mental health and substance abuse service delivery for older adults in primary care has developed seven key dimensions to conceptualize the degree of integration (SAMHSA Primary Care and Aging Study, in progress, 2000).

- ◆ **Responsibility:** Who is responsible for the development of the treatment? Mental health, primary care or a combination?
- ◆ **Array of Services:** Are mental health services available in the primary care setting? If yes, what type, provided by whom and how much?
- ◆ **Provider Expertise:** Are PCP's trained to provide behavioral assessments and/or treatment? Are mental health providers trained to deliver care to patients with co-morbid medical and mental illness? Are behavioral health specialists available who have expertise in the treatment of co-morbid disorders (e.g. advanced practice nurses with specific expertise in this area, health psychologists, consultation-liaison psychiatrists)?
- ◆ **Communication:** Are mechanisms in place to assure that PC and MH clinicians can communicate with each other around common patients? Does policy exist regarding the sharing of medical records?
- ◆ **Organizational (Financial) Structure:** Does the organizational and administrative structure drive clinical integration or do clinical needs define the organizational structure? If clinical integration is at the cornerstone of clinical services delivered then the administrative and financial structure can facilitate and not present a barrier to care.
- ◆ **Temporal proximity:** How easily can MH services be accessed? Can services be accessed in a timely fashion?

- ◆ **Physical Proximity:** Are mental health and primary care services physically close and conveniently located to each other?

Economic Implications

The economic implications of providing comprehensive and integrated care for patients with comorbidity have been explored to a limited extent. Data has been presented which has suggested that appropriate psychosocial care can provide offsets of cost in the medical setting. Cost effectiveness studies on the other hand, have evaluated the relationship of cost to clinical outcomes when appropriate and integrated care are delivered to this patient population. A criticism of this work has been that it may not be translatable from research setting to a clinical environment. In fact most budgetary decisions regarding provision of these services are made utilizing presumptions that increased care can only mean increased costs. Preliminary economic models that incorporate costs of care for patients with co-morbid psychiatric issues diagnosed and treated vs. those not receiving that care and include the cost of delivering that care by a mental health specialist as compared to a primary care provider, extrapolated to larger populations suggest that more services do not necessarily cost more money. In fact, such models have postulated that savings of \$1.4 billion could be realized in a population of 100,000 primary care patients (Kathol & Sargeant, 1998). However, while there is some preliminary evidence and theory to support the cost neutral or cost negative implication of integrated behavioral health care, there is still no definitive economic model or science to drive administrative or budgetary planning of integration. Such models can and should be developed and tested within clinical practice settings and should employ both short term and long term clinical and economic outcomes.

IV. PRACTICE GUIDELINES, ACCREDITATION STANDARDS AND HEALTH PLAN PROVISIONS FOR THE DELIVERY OF BEHAVIORAL HEALTH CARE TO PATIENTS WITH COMORBID MEDICAL AND MENTAL HEALTH DISORDERS

The first section of this report summarizes the literature identifying the clinical characteristics of this patient population, summarizes existing treatment, intervention and outcome studies aimed at patients with medical and psychiatric comorbidity. Clear evidence exists to suggest that this patient population is at increased risk for both medical and psychiatric morbidity and mortality and that interventions are not only recommended but have been proven to be effective in reducing psychiatric and medical morbidity, and may impact positively on economic outcomes as well. This section of the report outlines the currently existing practice guidelines, accreditation standards and health plan provisions that address the provision of mental health care to the medically ill.

A. Clinical Guidelines

AHCPR Clinical Practice Guideline: Depression in Primary Care

The Agency for Health Care Policy Research released a set of evidence based guidelines, *Depression in the Primary Care Setting*, in 1993. The guidelines, which were developed utilizing a systematic review of existing data by an interdisciplinary panel of experts, include recommendations for both assessment and treatment in the primary care setting. These guidelines have had wide dissemination. Diagnostic and treatment recommendations have been widely utilized in health plans and recently have been included as the basis of a mandatory quality indicator for use in National Committee on Quality Assurance accreditation procedures. In addition to carefully describing the diagnosis of depression, the guideline reviews elements of psychiatric comorbidity and the diagnosis of other psychiatric disorders and gives guidance on the assessment and treatment of depression in the presence of other medical disorders. Treatment recommendations are specifically outlined in Volume 2 of the Guidelines and include recommendations for appropriate treatment follow-up medication and psychotherapeutic use.

Since release of the Guidelines, comments and criticism of the document have included discussion about the lack of balanced presentation of non-pharmacologic treatment modalities (Munoz, RF, et al., 1994; Coyne, J & Schwenk T, 1995). As noted in Part I of this document, clinical practice has suggested and evidence continues to build regarding the efficacy of psychotherapeutic treatments for patients with depression in the primary care setting. Further criticism centers on the lack of community based, effectiveness research that could more accurately identify several clinical and economic outcomes related to appropriate diagnosis and treatment of depression in the medical setting. However, Schulberg and colleagues (1998), recently revisited the recommendations and again asserted that both psychotherapy and pharmacological modalities are efficacious and can be transferred to the primary care setting, with appropriate support and education of primary care practitioners (Schulberg et al, 1998).

Academy of Psychosomatic Medicine Practice Guidelines: Psychiatric Consultation in the General Medical Setting

The Academy of Psychosomatic Medicine (APM), an organization representing psychiatrists who primarily care for patients with medical and psychiatric co-morbidity, recently published (Bronheim et al., 1998) a set of practice guidelines aimed at outlining the clinical assessments and interventions that are necessary for the management of co-morbid medical and psychiatric conditions.

The Guidelines outline several aspects of psychiatric care for this patient population: medical need and staffing, qualifications of consultants, indications for consultation and follow up, components of an adequate assessment, including elements of timeliness and

documentation, a review of appropriate and indicated interventions utilized in the setting of co-morbid medical and psychiatric illness, ethical considerations and special issues for child and adolescent consultation. Furthermore, the Guidelines address several administrative issues relevant to large training institutions.

This document summarizes relevant information regarding competencies and outcomes related to provision of behavioral health care to this patient population and makes several clinically based recommendations. Its strength lies in its comprehensive review of clinical practice and the correlation to existing research in the area. It primarily addresses the role of the psychiatrist with special expertise in co-morbidities within these populations. However, as it primarily focuses on clinical practice related to the treatment of multiple disorders, in multiple settings, it is not by definition, evidence based.

B. Accreditation Standards

Accreditation standards have been established in order to address both the clinical quality of care delivered and the process utilized to gain access and deliver that care in a variety of clinical settings. Historically such accreditation proceedings occurred within organized healthcare delivery settings such as hospitals. As health care has increasingly been delivered in both inpatient and outpatient settings through increasingly structured health delivery organizations the accreditation process has expanded in order to address all levels of organization. Two major accreditation organizations exist which have developed standards which health care organizations must meet in order to receive accreditation status. The Joint Commission on Healthcare Organizations (JCAHO) primarily focuses on inpatient settings, but also has issued a set of standards for long term care settings, behavioral health organizations and ambulatory care settings. The National Committee on Quality Assurance (NCQA) reviews managed care organizations, and while primarily focusing on outpatient care, also reviews elements of inpatient care that is provided under contract from the MCO.

This section will focus on a review of current JCAHO and NCQA standards that relate to the inpatient and outpatient psychiatric care of medically ill patients. The review assessed both the presence of service delivery requirements (is integration or coordination of care a requirement) and the presence of quality indicators based on clinical parameters which the agency required which would be specific to this patient population.

1. JCAHO Standards:

Three sets of JCAHO standards were reviewed: hospitals, managed behavioral healthcare, and ambulatory care. All JCAHO standards are similarly structured and focus on parameters of care historically delivered in an inpatient setting. All three standards address the need for integrated biopsychosocial care in their assessment and treatment sections. All state, in principle, that care should be integrated. No details follow regarding who should deliver that

care, and no specific clinical indicators are required which would address this integration. The standards do state that all patients should receive appropriate psychosocial assessment. However the nature of this assessment, who should complete it, what elements should be included, how it should be documented are not specified. The treatment sections do not include any language regarding the provision of mental health care for medically ill patients. The issue of provision of mental health care for the medically ill is addressed as it relates to discharge planning and transfer of patients between systems. The JCAHO Comprehensive Accreditation Manual for Hospitals (CAME) includes a section on Coordination of Care, which addresses the transfer and discharge of patients and the need for case management of patients receiving care in both settings.

The Comprehensive Accreditation Manual for Ambulatory Care (CAMAC) are applicable to a broadly defined group of practice settings including outpatient surgical centers, rehabilitation facilities, group practices or primary care centers. The standards are similar to the standards for the hospital setting, with some minor differences related to the outpatient setting. There is no explicit mention in these standards regarding assessment, treatment, coordination of care, patient or physician education or credentialing, which would relate to the specific needs of this patient population.

The Comprehensive Accreditation Manual for Managed Behavioral Health Care (CAMBHC) similarly states that each patient's physical and psychosocial status should be assessed. While the standards apply to outpatient and inpatient settings, the standard specifies only requirements for a history and physical within the inpatient setting. There is no discussion of special needs of patients with co-morbid disorders, including availability and requirement for consults, availability of consultations etc. The Coordination of Care section, similarly focuses on discharge and case management, but not integration of care between health care systems.

2. NCQA and HEDIS

In 1997, NCQA included standards pertinent to the coordination of medical and behavioral health care in its Managed Behavioral Healthcare Organization (MBHO) standards. These standards explicitly stated that, "The organization ensures that the behavioral healthcare services provided to its covered population are coordinated and integrated with general medical care." [standard Q16-]. The standard then specifies that the MBHO participates in appropriate exchange of information through the medical record, has appropriate referral mechanisms, has participation in formulary decision making and reviews psychopharmacologic use in the medical setting, addresses the behavioral health needs of patients with co-morbid medical and psychiatric disorders, and addresses the medical needs of behavioral health patients.

The recently released NCQA Accreditation 99 Standards for MCO's has parallel and further delineated standards. In summary, the "Continuity and Coordination of Care" (standard QI 9) states that managed care organizations ensure the continuity and coordination of care specifically between the MCO and MBHO. The standard requires exchange of information,

promotion of appropriate diagnosis, treatment and referral of behavioral disorders and "...access for appropriate treatment and follow up for individuals with *coexisting medical and behavioral disorders*." Further, the standard requires collection of data to evaluate coordination of care, including collaboration between the MCO and MBHO to identify ways to improved coordination of care between the two settings.

NCQA 2000 standards have recently been released and remained principally unchanged from the 1999 edition. They have however, one significant addition, the standards call for the organization to ensure continuity of care for a patient if managed care contracts lead to discontinuation of care with a particular provider.

In addition, NCQA includes a new standard to address the health needs of patients with chronic conditions, including depression (QI 7). The standard specifically states that these patients be identified based on clinical need as well as cost implications and it requires that MCO's educate practitioners about the benefit of "health management" programs to improve the clinical management of such patients.

The NCQA Accreditation '99 plan has also expanded its mission to include the incorporation of Health and Employer Data and Information Set (HEDIS) measures into the accreditation process. While the NCQA had developed the HEDIS set of outcome indicators prior to accreditation '99, the reporting of these was required for Medicaid programs and voluntary for non-Medicaid programs and was a separate process from the accreditation process. 1999 will mark the first year where obtaining accreditation status will require reporting and auditing of HEDIS measures.

HEDIS measures include clinical outcomes, process outcomes and patient satisfaction outcomes. The clinical outcomes relevant to behavioral health focused on follow-up after hospitalization for mental illness. In 1999, HEDIS introduced the first indicator specific to outpatient mental health practice that focuses on the clinical management of antidepressant treatment. The measure will be used in both MCO and MBHO settings. The indicator measures the adequacy of the clinical management of patients who are diagnosed with a major depression and who are receiving treatment with an antidepressant. Outcome measures address whether patients receive an adequate dose and duration of medication and care is consistent with guidelines established in the AHCPR Depression in the Primary Care Guidelines.

C. Health Plans and Medicaid Request for Proposals:

1. Medicaid Request for Proposals (RFP's)

The majority of states either have, or have plans to convert from a fee-for-service model of care to a managed care model of service delivery for their Medicaid eligible patient population. The majority of these managed Medicaid health plans have relied on differential funding schemes or carve-outs to pay for mental health services. In some states, mental health is entirely carved out; in others, mental health services are carved out only for seriously and persistently mentally ill patients. In all states there are limitations on the amount, type and setting of mental health services available. Despite parity legislation there are still significant inequities between medical services available and provided for and mental health services available and provided for. This fundamental difference results in different administration of mental health services and different mechanisms to pay for mental health services, whether they be an inpatient stay in a psychiatric unit, attendance at an outpatient substance abuse program, or outpatient treatment for a depressive disorder. Psychiatrists who provide services for patients in medical settings are most often billing patients through their mental health benefit. If the mental health benefit stipulates an identified set of mental health providers, locations and services and the psychiatrist or mental health provider is not included in that set (a common problem) then there is no reimbursement for the service. In many cases, providers may be assigned to a particular setting (e.g. hospital), but they may not have the ability to provide care to a patient with complicated medical and psychiatric problems. Review of existing RFPs has not shown any evidence that these issues are addressed. The need for the coordination of care between MCO's and MBHO's is often cited and is important, however details addressing the need to provide specific care to patients at the interface is critically lacking.

2. Health Plan Inclusion and Medicaid Plans:

Review of existing plans has not included language to address the issue of coordination of care. In one instance (Alter et al., 1997) post-contract negotiations clarified that the mental health carve-out provider was responsible and a significant effort was placed on developing coordination of care language in post contract documents. Review of recently released plans has not shown any evidence of improved coverage. A recent review of private plans has not stipulated this in formal plan documents. In some local settings (post-contract), systems have established guidelines by which consultations can be reimbursed. Even with these guidelines in place however, there continues to be a lack of follow through on reimbursement (Hails et al.).

Rosenbaum et al. (1996, 1998) has discussed the presence and impact of post-contract negotiations and stipulations in managed care plans. Provision of psychiatric consultation services and related mental health services regularly "fall through the cracks" for both inclusion in contracts and inclusion in post-contract negotiations and documents.

SAMHSA regularly publishes a Tracking Report of the status of public sector health plans. The recent edition of this document tracks coordination of behavioral and primary care for Medicaid patients. The report tracks several features of public sector plans, including carve-in vs. carve-out status, coverage for special populations and mechanisms for patient grievance. A variety of mechanisms exist regarding coordination of care that are relevant to the basic structure of mental health and substance abuse care delivery and financing in the public sector. Plans may be integrated, fully or partially carved-out or stand-alone. Integrated plans are those which have not "carved-out" mental health services and require the medical MCO to provide basic mental health services to patients. Thirty-five states operate 46 of these programs. However, the MCO may subcontract these services, ostensibly "carving them out" of general medical care. States may also partially carve-out specific services, or services to specific groups of patients. In a limited number of states, a full carve-out exists for all mental health services for all patients. While the SAMHSA report discusses this and other details such as risk, financial arrangements, and eligible patients, it does not discuss how clinical or financial integration is met under these various structures. What is clear is that even under these circumstances, with the trend toward integrated care, there still remains a significant difference in the way in which psychiatric care is provided and reimbursed. Furthermore, in the existence of co-morbid illness, there is minimal policy to will insure that this care can be delivered appropriately or reimbursed.

3. Existing Recommendations Regarding Health Plan Structures:

In 1996, as a result of investigations meant to address the absence of formal inclusion of behavioral health services, the Academy of Psychosomatic Medicine (APM) developed a set of recommendations which could be used by managed care plans, health providers, included in Medicaid RFP's, or to inform other standards and guidelines (Appendix). These recommendations clearly state that this care is best administered and funded through the medical benefit/services, if mental health care is delivered through a carve-out. Regardless of how care is administered or funded, the APM recommends that services should be available to all patients without pre-authorization for the initial visit and at least one follow-up visit and that clear billing policies and procedures need to be developed to manage these consults. Given the fact that psychiatrists typically are paid as part of the carve-out, and for services delivered to patients known by the carve-out, those services should be reimbursed equitably with other medical specialty reimbursements. Further, the recommendations state that efforts should be made to assure that: continuity of care is addressed; patients who are at the highest risk for co-morbid medical and psychiatric illness can receive that care in the same care settings; and that psychiatrists should participate in the development of coordination of care agreements between MBHO's and MCO's. These recommendations were endorsed by the American Psychiatric Association (APA) and have been utilized to develop policy in Philadelphia's public sector behavioral health carve-out, Community Behavioral Health and Magellan plans in the Delaware Valley area (Philadelphia, Delaware, New Jersey). The information was distributed widely to all members of the APM, all state Medicaid offices, leadership of the APA who participate in

developing and commenting on guidelines and standards, and several patient advocacy organizations.

Several other organizations have contributed Guidelines that address the provision of care to special populations, in none of them however, are the specific issues of provision of mental health care to chronic medically ill patients addressed. The Older Adult Panel from this Managed Care Initiative, documented that there was minimal attention paid to the care of elderly adults in organized systems of care and called for greater attention to this issue. The APA issued a set of guidelines, The APA Handbook for the Development of Public Managed Care Systems (APA, 1998) in 1998. This document, while not specifically addressing the care of this population, does state that consultation-liaison services should be included in carve-out services and that coordination of care and integration of care between the MCO and MBHO are critical factors. The American Academy of Child and Adolescent Psychiatry issued guidelines in 1996. These guidelines focus on the provision of general psychiatric and community based services to seriously ill children and adolescents. No identification is made of co-morbid psychiatric and medical illness in children and adolescents. The American Association of Community Psychiatry also issued a set of Guidelines for the provision of services in Organized Delivery Systems; once again, no discussion of care of co-morbid patients exists in this document.

In June 1999, the American Medical Association (AMA) adopted a policy resolution that addressed this issue. The resolution, "Medical, Surgical and Psychiatric Service Integration and Reimbursement," (Appendix) calls for the AMA to support and promote actions that encourage medically appropriate treatment of medical and surgical disorders in psychiatric patients and of psychiatric disorders in medical and surgical patients. Further, the resolution calls for the AMA to advocate for policies that insure access to and reimbursement for integrated care. The resolution was jointly sponsored by both medical and psychiatric professional organizations and represents the first action to use a multidisciplinary coalition to address this problem from a national perspective.

D. Summary of Existing Standards and Health Plans

In evaluating the clinical circumstances and problems inherent in providing integrated care for patients with co-morbid medical and psychiatric disorders, several themes are apparent. If health plans have not included mechanisms to insure that such care is provided effectively and efficiently, then do the existing standards address these areas in such a way as to insure coordination of care?

Clearly the JCAHO standards, which deal directly with the hospital environment, do not in any way address the clinical issues nor do they direct health plans to address any contractual issues in this regard. The NCQA standards set clear clinically relevant guideposts, which by implication require that some element of coordination take place between the two systems of care. Neither of these standards, however address the significant economic barriers to providing

care, and none call for the very important review of contractual arrangements, which clearly define reimbursement mechanisms.

V. PANEL RECOMMENDATIONS FOR THE CLINICAL INTEGRATION AND COORDINATION OF CARE FOR PATIENTS WITH MEDICAL AND PSYCHIATRIC CO-MORBID ILLNESS

Based on existing data, it is clear that concurrent, evidence-based mental health care coordinated with physical care in the medical setting results in better clinical outcomes and may result in reduced total health care expenditures. The panel has therefore concluded that if the following recommendations were adopted, they would lead to significant improvements in the treatment of patients with co-morbid medical and psychiatric conditions.

A. Public policy considerations

- ◆ Federal and state legislative efforts should address the need to provide parity of mental health and general medical benefits. Parity in financing could substantially reduce existing barriers.
- ◆ Federal and state legislation should include language specifically addressing integration. The June, 1999, AMA resolution can serve as a model for this language, and should be expanded to include all behavioral health services, as long as it is clear that no element or provider of care was excluded from those provisions.
- ◆ A proactive approach to delivery of care to co-morbid patients provides the maximum opportunity to provide integrated care.

B. Systems

- ◆ Health care systems, whether public or private sector, should ideally carve-in the provision of behavioral health services to chronic medically ill patients, regardless of whether a carve-out exists. If care cannot be carved-in, then appropriate mechanisms of care delivery and reimbursement should be established (see Providers section).
- ◆ Access to care should be reasonable, should be guided by medical necessity, and should be available without prior authorization procedures when medically indicated.
- ◆ Pre-authorization for consultations should not exist, or be consistent with other medical consultations; billing procedures must be clearly stated so that practitioners can follow appropriate procedures and billing staff have clear standards of operation.
- ◆ Reimbursement should be guaranteed if the consultation has been requested by the attending physician and medical necessity has been documented in the request for the consultation.
- ◆ Consultations should not be disallowed on a post-hoc review of the case, in which no mental illness diagnosis was given.

- ◆ As supported by the NCQA Coordination of Care standards, MCO's and MBHO's should actively work together to develop systems of integrated care.

C. Providers

The provider organization can significantly improve their level of care by identifying the patient population at risk for co-morbid illness, as well as addressing the following specific areas of concern.

- ◆ Identify MCO/MBHO linkages. It is critical for MCO's to identify which MBHO has responsibility for which patient. MBHO's should also know which MCO provides medical care for each of their patients. Not all patients will have the same combination of MCO:MBHO; as a result organizations need to be cognizant of the different combinations and develop provider organization-based linkages to facilitate care.
- ◆ Provider organizations should ensure that all levels of appropriate care exist. Specifically, that general mental health care services are available and geographically accessible, that inpatient consultation is available and delivered by professionals who have working relationships with primary care providers in the same institution, and that specialized mental health services (i.e. provided by those professionals with specific expertise in co-morbidity), are present in sufficient numbers and available to provide services. Furthermore, the same consideration should be given to ensuring that appropriate medical services are freely accessible by patients in psychiatric settings.
- ◆ Guidelines should be established within a care system outlining the roles and responsibilities of all professionals involved in the care of these patients. Input from all members of the care team for these patients should be required, including primary care physicians, psychiatrists, psychologists, nurses and social workers. Roles are not interchangeable; all competencies must be available and delivered by appropriately trained individuals. As a result of these guidelines, patients should have access to the appropriate level of care as warranted by the clinical presentation and as requested by referring physician.
- ◆ Health plans must have procedures in place to assure that reimbursement procedures to cover these services exist.
- ◆ A plan must be in place to ensure that there medical information is communicated between the MCO and MBHO when medically necessary or appropriate.
- ◆ As most formularies reside in the MCO, input from the MBHO should be assured. Clinical considerations of this special population should be formally and routinely considered.

D. Clinicians:

- ◆ Clinicians should know who is providing MH and Medical care for each of their patients.
- ◆ Referral information for all relevant MCO/MBHO plans must be clearly communicated.
- ◆ Ongoing efforts should be undertaken to educate both MCO and MBHO clinical staff about the medical and mental health needs of these patients. These educational programs must be ongoing and not time-limited. Ideally, they should involve utilization of case-based materials and should focus on skill-based learning. The education however, cannot substitute

for availability of and reimbursement for appropriate services.

- ◆ Clinicians treating patients with long-term mental illness should educate patients and families to be aware of and how to seek treatment for co-occurring medical and psychiatric symptoms, including those due to medication side effects or interactions.

VI. PANEL RECOMMENDATION FOR IDEAL ELEMENTS OF ACCREDITATION STANDARDS:

Coordination of care is critical in the delivery of efficient and effective care for all patients. Current Accreditation standards only partially address these issues. There are several areas of Accreditation Standards that should include language and requirements for review to ensure coordination of care.

A. Preamble:

The preamble or introduction to standards should address the principle that a holistic, integrated approach to the patient is important. Attempts should be made on all levels to assure the integration of all biological, psychological and social aspects of the patients illness and the care administered.

- ◆ Standards should require that structural and contractual arrangements exist between all organizations within their system that can address this integration. Standards, which hold the parent organization responsible for subcontracted services, place the strongest burden on a health care organization.
- ◆ Both the MCO and MBHO must be held accountable for the integration of medical and psychiatric care, regardless of financial risk.

B. Assessment:

Assessment and diagnostic standards should meet the following requirements.

- ◆ The need for the availability of consultations for patients. Diagnostic assessments should be available in a timely fashion (consistent with other standards).
- ◆ A psychiatrist should perform psychiatric assessments, similar to other requests for specialized medical expertise, when medical attendants order them and when medical necessity criteria have been met.
- ◆ Other mental health professionals should participate in the further assessment and treatment of patients at the request of the attending physician and/or the psychiatrist. Current standards, which state that psychiatric input should be available as needed (JCAHO) or that makes all behavioral health care professionals interchangeable without clear criteria to deliver care (HEDIS depression indicator), are vague and inconsistent with other standards such as anesthesia or surgery standards, which clearly define the role of the physician and non-physician staff.

C. Treatment:

Language must be included that allows for appropriate follow-up and sets expectations

that patients must receive appropriate care delivered by appropriate professionals. Behavioral health standard should state the role of various treatment professionals, as do general medical care standards.

D. Credentialing:

- ◆ Standards must address the need for appropriately credentialed and privileged professionals to provide this care. Treatment settings that serve primarily persons with medical disorders and those that serve primarily patients with psychiatric disorders should both have on staff professionals with complementary preparation (psychiatric professionals in medical settings and vice versa), who not only can provide consultation and treatment but can be reimbursed.
- ◆ Appropriate standards need to address the credentialing requirements of all health professionals involved; professional's roles, training and expertise need to be clearly stated.
- ◆ The practice of transferring patients and using individuals with temporary credentials to provide care, is not acceptable, nor is it consistent with other standards of care related to other medical needs such as cardiology, surgery or anesthesia. It is appropriate for clinical specialists in psychiatric nursing (advanced practice nurses) or nurse practitioners to provide this care when it is part of usual care provided and not done on an ad hoc basis.

E. Coordination of Care:

- ◆ Binding agreements must be required of medical and behavioral health organizations to ensure bona fide clinical coordination of care.
- ◆ Coordination of care must be inclusive of all services and not limited to case management or discharge planning.
- ◆ Evidence of coordination of care would include mechanisms to provide and reimburse for services to patients with co-morbid medical and mental illness, presence of (voting) cross participation on formulary and patient care committees, development of active clinical liaison and education between both organizations.

F. Prevention:

- ◆ Prevention efforts must address the mental health needs of patients not receiving routine behavioral healthcare. As these patients are not officially regarded as cases within the MBHO there is currently little reason to address their needs. Both the MCO and MBHO must be held accountable for these efforts.
- ◆ The MBHO should inform and provide input into any preventive behavioral healthcare that patients receive in the medical setting.
- ◆ The MCO, in partnership with the MBHO, has the responsibility to address the health needs of their patient population. As co-morbid patients are particularly at-risk, secondary to the administrative complexity of this care, specific interventions must be developed to address mental health needs.
- ◆ MCO's and MBHO's should address prevention by educating patients and families to recognize co-morbidity and to promptly report it to their professional caregivers.

G. Indicators:

- ◆ Relevant mental health quality indicators which address both diagnosis and treatment of mental illness in the chronic medically ill, need to be developed and utilized as clinical indicators of care delivery.

**VII TABLE 1:
PREVALENCE OF DEPRESSION DISORDERS IN PATIENTS WITH
CARDIAC DISEASE IN STUDIES USING STANDARDIZED
INSTRUMENTS**

Study	Instrument	Subjects (n)	Diagnostic Criteria	Prevalence %
Stern et al (1977)	Zung Self-Rating Depression Scale	Patients admitted to CCU with acute MI (68)	Depression defined as > 40 on Zung Scale	22%
Hance et al (1996)	DIS	Patients undergoing elective cardiac catheterization (200)	DSM-IV	17% major depression 17% minor depression
Frasure-Smith et al (1994)	Modified DIS	Patients hospitalized for acute MI (222)	DSM-BIR	16% major depression
Carney et al (1987)	DIS	Patients undergoing elective cardiac catheterization (50)	DSM-III	18%
Schliefer et al (1989)	SADS	Patients admitted to hospital with primary diagnosis of MI (283)	RDC	18% major depression 27% minor depression

**TABLE 2:
PREVALENCE OF DEPRESSIVE DISORDERS IN PATIENTS WITH DIABETES
IN STUDIES USING STANDARDIZED INSTRUMENTS (adapted from Lustman et
al (1998))**

Study	Instrument	Diagnostic Criteria	Subjects	Prevalence (n)	Controls %	Prevalence (n) %
Wells et al (1989)	DIS	DSM-III	Types 1 and 2 in the community (154)	9.6 current 14.4* lifetime	Medically well (1353)	4.4 current 6.9 lifetime
.....						
Weyerer et al (1989)	Clinical Interview Schedule	ICD 8	Type 2 in the community (55)	27.3*	Medically ill (3250) Medically well (122)	20.3 (medically ill) 10.6 (medically well)
.....						
Popkin et al (1988)	DIS	DSM-III	Type 1 patients who were candidates for pancreatic transplant (75)	10.7* (current) 24* (lifetime)	First degree relatives (34) General population (9543)	2.9 current 5.9 lifetime(rela tives) 3.1 current 5.5 lifetime(gen eral population)
.....						
Robinson et al (1988)	Present State Examination	Bedford College Criteria (similar to RDC)	Types 1 and 2 in a clinics (130)	8.5%	Medically well (130)	8.5%

.....

- significantly greater prevalence of depression in diabetes patients vs. controls (p,0.05)



**TABLE 3:
PREVALENCE OF DEPRESSIVE DISORDERS IN PATIENTS WITH CANCER IN
STUDIES USING STANDARDIZED RATING SCALES OR STRUCTURED
INTERVIEWS**

Study	Instrument	Diagnostic criteria	Subjects	Cancer type	Prevalence
Jove et al depression	SADS-L, HCS	RDC	18 outpatients	Pancreatic	50% major
depression				gastric	0% major
.....					
Rasavi et al depression 1990	DIS, HDRS 52% adjustment disorder/depressed	DSM-III-R	128 inpatients	various	8% major
.....					
Plumb and depression Holland 1977	CAPPS	CAPPS	80 inpatients	various	4% severe 19%
.....					
Farber et al severe, 21% 1984	SCL-90 moderate	SCL-90	141 outpatients	various	19%
.....					
Stefanek et al 24% 1987	BSI moderate		126 outpatients	Mixed	9% severe,
.....					
Kathol et al depressive 1990	HDRS, BDI symptoms		808	Mixed	19%
.....					
Davies et al depressive	GHQ, LSSD		38 inpatients	Oropharynx	48%

1986 (GHQ) depressive (LSSD)					symptoms 29% symptoms
.....					
Hopwood et al CIS	DSM-III depressive ill- ness or anxiety state	81 outpatients	Breast		25%
.....					
Goldenberg et symptoms: al 1992	RSCL	166 outpatients	Breast		Depressive 32% preop
.....					
Pinder et al 1993	HADS 53 inpatients	86 inpatients	Breast symptoms		12

TABLE 4:
PREVALENCE OF DEPRESSIVE DISORDERS IN PATIENTS WITH COPD AND
CHRONIC LUNG DISORDERS

Study	Instrument	Diagnostic Criteria	Subjects	Prevalence
Light et al 1985	BDI		45 COPD patients in VA clinic	42%
.....				
Karagji 1990	SCID	DSM-III-R	50 outpatients with stable COPD	18% Lifetime major depression or dysthymia

TABLE 5:
EFFICACY OF ANTIDEPRESSANT TREATMENT IN PATIENTS WITH HEART
DISEASE, DIABETES, CANCER, AND COPD: CONTROLLED STUDIES

Investigators	Sample	Intervention	Outcome
Heart Disease			
Veith et al 1983	24 patients post MI or CABG	4 week double blind placebo controlled trial IMI vs. DOX vs. placebo	Significant improvement in HAM-D depression scores ($p < .001$) 8/8 pts on IMI and 7/8 pts on Doxepin moderately or significantly improved
.....			
Finkel et al 1996	40 patients with ischemic heart disease to	6 week prospective randomized trial Paroxetine vs. Nortriptyline	73% response to PAROX NOR 66% response
.....			

Roose et al 1997	ischemic heart disease	Patients with double blind	Week prospective 60% response to PAROX 61 % to
NOR		treatment with PAROX vs. NOR	

COPD

Borson et al 1992	36 pats. With COPD and major depression or dysthynua	12 wk trial of NOR	NOR 77% sustained vs. placeboimprovement in mood vs. 12% sustained improvement in placebo group; 60% improvement in HAM-D score in NOR group vs. 17% improvement in placebo group
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Light et al 1986	12 patients with COPD and depressive symptoms (BDI score > 16)	6 wk trial of doxepin vs placebo single group crossover design	No improvement in depressive or anxiety symptoms with doxepin
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Cancer

Costa et al 1985	73 women with cancer and depression	4 week double blind, placebo controlled trial of mianserin vs. placebo	Significant improvement in HAM_D depression scores in pts on mianserin vs. placebo
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Van Heeringen and Zivkov 1996	55 women with nonmetastatic breast CA	6 wk randomized placebo controlled trial mianserin vs. placebo	Significant improvement in HAM_D scores with mianserin compared to
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placebo

Diabetes

1992	Depressed patients with diabetes	Randomized placebo controlled nortriptyline vs. placebo	Improvement in depressive symptoms significantly greater in NOR group
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compared to placebo
(p= .03)

Table 5a Prevalence of Anxiety Disorder in the Medically III

Study	Instruments	Medical illness	Sample Size	Panic Disorder Prevalence %	GAD Prevalence%	All anxiety disorders prevalence
Sherborne et al	Modified DIS	Hypertension	1475	0.9 cur 2.2 life	10.4 cur 2.2 life	14.6 cur 28.0 life
		Diabetes	512	1.1 cur 1.21.5 life	1.9 cur 20.6 life	15.5 cur 25.8 life
		Heart Disease	245	1.3 cur 1.7 life	12.4 cur 22.8 life	17.8 cur 27.8 life
Stern et al 1977	Taylor Manifest Anxiety Scale	Acute MI	68			22%
Wells et al	DIS	Chronic Medically				
Derogatis et al 1983	Interview	Cancer	215		0.5	2.0
Karajgi et al 1990	SCID	COPD	50	8.0		16.0
Katon et al 1988	DIS	CAD	46	6.5		

Tables 5b Anxiety disorders in the Community

Study	Instrument	Population	Sample Size	Panic disorder	GAD	Any anxiety disorder
Regier et al	DIS	Community	18571	0.3 men 0.7		4.7 men 9.7
Kessler et al 1994	CIDI modified	Community	809B	Male 1.4 curr Female 3.2 curr	Male 2.0 curr Female 4.3 curr	Male 11.8 curr Female 22.6 curr

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