

Screening to Save Health Care Dollars

Identification and Treatment of Mental Illness Can Improve Overall Health and Reduce Health Care Utilization, Costs

Mental illness associated with poor overall health, higher costs

Consequences for overall health:

- While the causal relationship between physical and mental illness is not fully understood, mental illness can be seen to contribute to the onset of physical illness.^{1,2}
- Children and adolescents who suffer from depression are more likely to suffer from physical health problems, including asthma and obesity, in adulthood.^{3,4,5}
- Adolescents with depressive disorders experience considerably more somatic, i.e., physiological, symptoms than their healthy counterparts, and the duration and depth of the depression is positively correlated with the number of somatic symptoms.⁶

As a mortality risk factor, the effect of depression is comparable in strength to smoking.⁷

- Depressed patients, including pediatric patients, have been shown to be up to three times more likely to be noncompliant with medical treatment recommendations.⁸ Non-adherence to medical treatment has been shown to lead to poorer than expected outcomes and higher costs.⁹

Effects on health care utilization, costs:

- Numerous studies have shown that mental illness is associated with higher utilization of non-psychiatric health care and higher costs.^{10,11,12}
- In a study of more than half a million patient records, those patients with depression and another comorbid condition, such as asthma, diabetes and obesity, had higher non-mental health costs than patients without depression across each of 11 diseases studied.¹³

Increased morbidity and mortality is generally acknowledged to be the greatest indirect cost of mental illness to individuals and society, accounting for approximately 80 percent of all indirect expenses.¹⁴

- Affective disorders (primarily depression) were the leading cause of hospitalization among youth age 13 to 17 years of age in 2000. Together, affective and other mental disorders accounted for 41.8 percent of all hospital admissions in this age bracket.¹⁵
- Mental disorders accounted for three of the ten pediatric diagnoses leading to the longest average length of hospital stay in 2000.¹⁶
- From 1992 to 2001, emergency department services in the United States increased by 8 percent overall, while the number of mental health-related visits increased by 38 percent.¹⁷
- Child mental health disorders accounted for \$8.9 billion in medical expenditures in 2006, more than for asthma, trauma-related disorders, acute bronchitis, or infectious disease.¹⁸

Mental health treatment can reduce health care utilization and costs, improve outcomes

Reductions in health care utilization, costs:

- A study of Aetna patients who received treatment for mental illness found that total health care costs, including for family members of mental health patients, gradually increased prior to an individual's treatment and then decreased afterward – from \$101.71 per person, per month prior to treatment, to \$93.13 in the treatment period, and \$74.03 in the 12 months following initiation of treatment.¹⁹



■ Kaiser Permanente patients who received psychotherapy were reported to have reduced their health care utilization in several categories including:

- a 77.9% decrease in the average hospital length-of-stay
- a 66.7% reduction in the frequency of hospitalization
- a 48.6% drop in the number of prescriptions written
- a 47.1% decrease in physician office visits
- a 45.3% decrease in emergency room visits.²⁰

■ A study in *Hospital and Community Psychiatry* concluded that a decrease in overall health care costs can be expected following mental health interventions even when the cost of intervention is included.²¹

■ Psychotherapy has been shown to reduce medical utilization. A 1997 study of 55 subjects enrolled in a course of psychotherapy found that visits to family medicine providers fell by nearly 50 percent.²²

■ A meta-analysis of 58 studies on the cost-offset effect of mental health treatment found that psychotherapy resulted in a reduction in medical costs in the vast majority (85 percent) of the studies.²³

Improvements in overall health:

■ Mental health interventions in individuals with comorbid mental and physical health conditions can improve treatment adherence and lead to resultant improvements in health outcomes.^{24,25}

■ Treatment for depression has been found to result in fewer somatic (physiological) symptoms.²⁶

■ Early assessment and intervention for depression among asthmatic youth leads to improved treatment adherence and improved outcomes, and it may also decrease mortality.²⁷

Prevention, early intervention hold enormous promise for improvements

■ The World Health Organization holds that cost-effective mental health interventions reduce psychiatric morbidity; lower the burden on families and households; allow for higher rates of participation in the workforce; and result in reduced levels of crime and antisocial behavior.²⁸

■ According to data cited by the National Institute of Mental Health (NIMH), the cost of covering mental illness on the same basis as medical illness would cost \$6.5 billion, but this spending would result in savings of \$8.7 billion to U.S. taxpayers.

¹ Evans, D.L. and Charney, P.S. Mood disorders and medical illness: a major public health problem. (2003). *Society of Biological Psychiatry* 54:177-180.

² Chapman, D.P. et al. (2005). The vital link between chronic disease and depressive disorders. *Preventing Chronic Disease: serial online*. Accessed 12/10/09 at: www.cdc.gov/pcd/issues/2005/jan/04_0066.htm.

³ Goodwin, R.D. et al. (2008). Do mental health problems in childhood predict chronic physical conditions among males in early adulthood? Evidence from a community-based prospective study. *Psychological Medicine* 1-11.

⁴ Pine, D. et al. (1997). Psychiatric symptoms in adolescence as predictors of obesity in early adulthood: a longitudinal study. *American Journal of Public Health* 87:1303-1310

⁵ Pine, D.S. et al. (2001). The association between childhood depression and adulthood body mass index. *Pediatrics* 107:1049-1056.

⁶ Bohman, H. et al. (2010). Somatic symptoms as a marker for severity in adolescent depression. *Acta Paediatrica* online early.

⁷ Mykletun, A. et al. (2009). Levels of anxiety and depression as predictors of mortality: the HUNT study. *British Journal of Psychiatry* 195:118-125.

⁸ DiMatteo, R. et al. (2000). Depression is a risk factor for non-compliance with medical treatment. *Archives of Internal Medicine* 160:2101-2107.

⁹ Taddeo, D. et al. (2008). Adherence to treatment in adolescents. *Paediatrics & Child Health* 13(1): 19-24.

¹⁰ Henk, H. et al. (1996). Medical costs attributed to depression among patients with a history of high medical expenses in a health maintenance organization. *Archives of General Psychiatry* 53:899-904.

¹¹ Manning, W. and Wells, K. (1992). The effects of psychological distress and psychological well-being on use of medical services. *Medical Care* 30(6):541-553.

¹² Katon, W. et al. (2006). Cost-effectiveness and net benefit of enhanced treatment of depression for older adults with diabetes and depression. *Diabetes Care* 29 (2):265-70.

¹³ Welch, C. et al. (2009). Depression and costs of health care. *Psychosomatics* 50(4):392-401.

¹⁴ National Research Council and Institute of Medicine. (2009). Preventing mental, emotional and behavioral disorders among young people: progress and possibilities. Washington, DC: National Academies Press.

¹⁵ Owens, P.L. et al. (2003). Care of Children and Adolescents in U.S. Hospitals. Rockville (MD): Agency for Healthcare Research and Quality. HCUP Fact Book No. 4; AHRQ Publication No. 04-0004.

¹⁶ Ibid.

¹⁷ Larkin, G.L. et al. (2005). Trends in U.S. emergency department visits for mental health conditions, 1992 to 2001. *Psychiatric Services* 56(6):671-677.

¹⁸ Soni, Anita. (2009). The five most costly children's conditions, 2006: Estimates for the U.S. civilian noninstitutionalized children, ages 0-17. Statistical Brief #242. Agency for Healthcare Research and Quality, Rockville, MD.

¹⁹ Holder, H.D. and Blose, J.O. (1987). Changes in health care costs and utilization associated with mental health treatment. *Hospital and Community Psychiatry* 38:1070-1075.

²⁰ Lechnyr, R.J. (1993). The Cost Savings of Mental Health Services. *The EAP Digest*. November/December, 14:1;22-27.

²¹ See endnote 19.

²² Golden, G. (1997). Impact of psychotherapy. Does it affect frequency of visits to family physicians? *Canadian Family Physician* 43:1098-1102.

²³ Mumford, E. et al. (1984). A new look at evidence about reduced cost of medical utilization following mental health treatment. *American Journal of Psychiatry* 141(10):1145-1158.

²⁴ Olsson, M. et al. (1999). Mental health/medical care cost offsets: Opportunities for managed care. *Health Affairs* 18(2):79-90.

²⁵ Chapman, D.P. et al. (2005). The vital link between chronic disease and depressive disorders. *Preventing Chronic Disease: serial online*. Accessed 12/10/09 at: www.cdc.gov/pcd/issues/2005/jan/04_0066.htm.

²⁶ Simon, G.E. et al. (1998). Impact of improved depression treatment in primary care on daily functioning and disability. *Psychological Medicine* 28:693-701.

²⁷ Galil, N. (200). Depression and asthma in children. *Current Opinion in Pediatrics* 12:331-335.

²⁸ World Health Organization. (2006). Economic aspects of the mental health system: Key messages to health planners and policy makers. Geneva: WHO.