



Permanente Abstracts

Cost-Effectiveness of a Hospital-Based Smoking Cessation Intervention

Meenan RT; Stevens VJ; Hornbrook MC; La Chance PA; Glasgow RE; Hollis JF; Lichtenstein E; Vogt TM. Med Care 1998 May;36(5):670-8.

Objectives: This study evaluated the cost-effectiveness of a smoking cessation and relapse-prevention program for hospitalized adult smokers from the perspective of an implementing hospital. It is an economic analysis of a two-group-model health maintenance organization. The intervention included a 20-minute bedside counseling session with an experienced health counselor, a 12-minute video, self-help materials, and one or two follow-up calls.

Methods: Outcome measures were incremental cost (above usual care) per quit attributable to the intervention.

Results: Cost of the research intervention was \$159 per smoker, and incremental cost per incremental quit was \$3,697. Incremental cost per incremental discounted life-year saved ranged between \$1,691 and \$7,444, much less than most other routine medical procedures. Replication scenarios suggest that with realistic implementation assumptions, total intervention costs would decline significantly and incremental cost per incremental discounted life-year saved would be reduced by more than 90%, to approximately \$380.

Conclusions: Providing brief smoking cessation advice to hospitalized smokers is relatively inexpensive, cost-effective, and should become a part of the standard of inpatient care.

Suicide Mortality Among Patients Treated for Depression in an Insured Population.

Simon GE; VonKorff M. Am J Epidemiol 1998 Jan 15;147(2):155-60.

Studies of inpatient and specialty samples have estimated that 15% of depressed patients eventually die by suicide. This report examines suicide mortality among members of Group Health Cooperative of Puget Sound, a large health plan in western Washington state, who were treated for depression. Computerized discharge diagnoses, outpatient visit diagnoses, and outpatient prescription records were used to identify all deaths and all suicide deaths in this sample before January 1, 1995. During the study period, 35,546 individuals received some treatment for depression and accounted for 62,159 person-years of follow-up. Of 850 deaths, 36 (4.2%) were classified as definite or possible suicides. Overall suicide mortality rate was

59 per 100,000 person-years, and was significantly higher among men than women (118 vs. 36 per 100,000 person-years, respectively). Risk per 100,000 person-years declined from 224 among patients who received outpatient specialty mental health treatment to 43 among those treated with antidepressant medications in primary care to 0 among those treated in primary care without antidepressants. These data suggest that overall suicide risk among patients treated for depression is considerably lower than previous estimates based on specialty and inpatient samples. Risk is strongly related to treatment history—a likely indicator of illness severity.

Body Size and the Risk of Colon Cancer in a Large Case-Control Study

Caan BJ; Coates AO; Slattery ML; Potter JD; Quesenberry CP Jr; Edwards SM. Int J Obes Relat Metab Disord 1998 Feb;22(2):178-84.

Objective: To investigate the risks of height, weight, and body fat distribution associated with colon cancer in subcategories of gender, age, and site in the colon. Interaction with family history of colorectal cancer is also examined.

Design: Nineteen hundred eighty-three colon cancer cases (age 30-79 years) and 2400 age- and gender- matched population controls.

Measurements: Height, weight, and waist and hip circumferences were obtained by trained interviewers. Body Mass Index (BMI) and Waist-Hip Ratio (WHR) were calculated.

Results: Of all anthropometric measurements examined, only BMI was consistently associated with an increased risk of colon cancer. The test for trend for BMI was significant for men and women overall and for the majority of subgroups examined. In younger persons, those with a family history of colorectal cancer had a greater risk of colon cancer associated with BMI (men: odds ratio (OR) = 7.76, 95% confidence interval (CI) 2.60 - 23.1; women: OR = 4.85, 95% CI 2.33 - 10.12) comparing the third tertile to the first, than those with no family history (men: OR = 1.70, 95% CI 1.25 - 2.32; women: OR = 1.53, 95% CI 1.22 - 1.92). WHR, after controlling for BMI, was not associated with colon cancer in men and was associated with a slight increase in women (primarily in those with distal tumors).

Conclusion: This study contributes to mounting evidence that excess weight is associated with an increased risk of colon cancer.



Prevalence and Causes of Undernutrition in Medical Outpatients

Wilson MMG; Vaswani S; Liu D; Morley JE; Miller DK. *Am J Med* 1998 Jan;104(1):56-63.

Purpose: To assess the prevalence, common causes, and frequency of recognition and treatment of undernutrition in older and younger medical outpatients using a cross-sectional survey design with 2-year follow-up of undernourished subjects.

Patients and Methods: Charts of 1017 adult patients attending a hospital outpatient department were reviewed for the presence of undernutrition, and 85 patients meeting inclusion criteria for undernutrition were evaluated and followed for 2 years. An initial evaluation focused on nutritional, cognitive, and affective status and on nutritional attitudes using two subscales of the EAT-26 eating disorder inventory. After 2 years, initial data plus outpatient records were evaluated by 2 independent reviewers to determine a primary cause of undernutrition and to assess the recognition and treatment of undernutrition by the primary physician.

Results: Undernutrition was identified in 46 (11%) and 44 (7%) of older and younger subjects respectively; odds ratio (OR) (95% confidence interval (CI)) for older versus younger = 1.65 (1.06 to 2.51). The primary cause of undernutrition differed between age groups but was deemed treatable in nearly 90% of all subjects. Undernutrition was recognized in 19 (43%) older subjects and 5 (12%) younger subjects (OR = 5.47 1.87 to 16.0), and appropriate intervention(s) were instituted in 6 (14%) and 2 (5%) of older and younger subjects, respectively (OR = 3.08 (0.668 to 14.2)). Older subjects scored higher on the EAT-26 oral control subscale than did younger subjects (4.7 versus 2.5, $P = 0.004$) but similarly on the EAT-26 dieting subscale (5.2 versus 6.3, $P = 0.332$); these relationships did not change with control for potentially confounding variables.

Conclusions: In this study, undernutrition was relatively common, usually amenable to treatment, but frequently undetected and undertreated in both older and younger medical outpatients. Older undernourished subjects exhibited higher oral control needs than younger persons, which may have implications for the pathophysiology and treatment of their malnutrition. Further improvement in detection and intervention is warranted in both younger and older age groups.

Effectiveness and Cost-Effectiveness of Letters, Automated Telephone Messages, or Both for Underimmunized Children in a Health Maintenance Organization

Lieu TA; Capra AM; Makol J; Black SB; Shinefield HR. *Pediatrics* 1998 Apr;101(4):E3.

Background: Immunization rates have improved in the United States but are still far from the national 90% goal for the year 2000. There is scant evidence about the effectiveness and costs of automated telephone messages to improve immunization rates among privately insured children.

Objective: To evaluate the effectiveness and cost-effectiveness of sending letters, automated telephone messages, or both to families of underimmunized 20-month-olds in a health maintenance organization (HMO).

Methods: In this randomized trial, underimmunized 20-month-olds identified by the HMO's computerized immunization tracking system were assigned to one of four interventions: 1) an automated telephone message alone; 2) a letter alone; 3) an automated telephone message alone but left 1 week later; and 4) a letter followed by an automated telephone message 1 week later. The primary outcome was receipt of any needed immunization by 24 months of age. Decision analysis was used to evaluate the projected cost-effectiveness of the alternative strategies.

Results: A total of 648 children were randomized. A letter followed by a telephone message (58% immunized) was significantly better than either a letter alone (44% immunized) or a telephone message alone (44% immunized). A telephone message followed by a letter (53% immunized) also was more effective than either alone, although the differences were not statistically significant. Among a similar comparison group that received no systematic intervention, 36% were immunized. The estimated cost per child immunized was \$7.00 using letters followed by automated telephone messages, \$9.80 using automated telephone messages alone, and \$10.50 using letters alone. Under alternative cost assumptions for automated telephone messages and mailed messages, the cost per child immunized ranged from \$2.20 to \$6.50.

Conclusions: For underimmunized 20-month-olds in this HMO setting, letters followed by automated telephone messages were more effective and cost-effective than either message alone. The cost-effectiveness of automated telephone messages and letters may vary widely depending on the setting, and choices among strategies should be tailored to the populations being served.

Obesity, Health Services Use, and Health Care Costs Among Members of a Health Maintenance Organization

Quesenberry CP Jr; Caan B; Jacobson A. Arch Intern Med 1998 Mar 9;158(5):466-72.

Background: Obesity is an independent risk factor for a variety of chronic diseases and is therefore a potential source of avoidable excess health care expenditures. Previous studies of obesity and health care costs have used group level data, applying estimates of population-attributable risks to estimates of US total costs of care for each obesity-related disease.

Objective: To quantify the association between body mass index (BMI) and health services use and costs stratified by age and use source at the patient level, a level of detail not previously reported.

Methods: In 17,118 respondents to a 1993 health survey of members of a large health maintenance organization, we ascertained through computerized databases all hospitalizations, laboratory services,

outpatient visits, outpatient pharmacy and radiology services, and the direct costs of providing these services during 1993.

Results: There was an association between BMI and annual rates of inpatient days, number and costs of outpatient visits, costs of outpatient pharmacy and laboratory services, and total costs ($P \leq 0.003$). Relative to BMI of 20 to 24.9, mean annual total costs were 25% greater among those with BMI of 30 to 34.9 (rate ratio, 1.25; 95% confidence interval, 1.10-1.41) and 44% greater among those with BMI of ≥ 35 (rate ratio, 1.44; 95% confidence interval, 1.22-1.71). The association between BMI and coronary heart disease, hypertension, and diabetes largely explained these elevated costs.

Conclusion: Given the high prevalence of obesity and the associated elevated rates of health services use and costs, there is a significant potential for a reduction in health care expenditures through obesity prevention efforts. ❖

He Turned It Down Once

"He turned it down once;
he turned it down once too often."

*The Official End of Conversation
Pioneer Electronics*