bacteremia, pneumonia, and otitis media, but costs more than previously introduced vaccines. We determined the savings in medical costs over 36 months of life attributable to the use of the vaccine in healthy infants in a large randomized trial.

**METHODS:** We analyzed the actual costs and utilization for 36,471 children involved in a randomized trial of the heptavalent pneumococcal conjugate vaccine conducted in the Northern California Kaiser Permanente Medical Care Program (KP). Costs were analyzed for all children randomized in the trial (intent-to-treat) who were members of the health plan at any time during the follow-up. All clinic- and pharmacy-related costs were included, as were those hospital costs associated with conditions deemed to be potentially pneumococcal related. The cost of the vaccine and vaccine administration were excluded. Confidence intervals around cost savings were calculated using bootstrap replications.

**RESULTS:** Compared with the control group, the vaccinated group incurred $78 less in medical costs (CI: $5 to $158) per child during the first 36 months of life, exclusive of the cost of the vaccine. This represented savings of about 3% of total medical costs for these children during that time period.

**CONCLUSION:** The pneumococcal conjugate vaccine reduced medical costs in children in the first 36 months of life, before factoring in the cost of the vaccine and vaccine administration. These cost savings, however, are unlikely to offset the cost of the vaccine at its current price.

**MENTAL HEALTH I**

**SOAP-51: A QUALITY OF LIFE SURVEY FOR COMMUNITY-RESIDING INDIVIDUALS WITH SCHIZOPHRENIA**

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**OBJECTIVES:** To establish the concurrent and discriminatory validity, and relative item importance of the previously developed client-centered, 51-item Schizophrenia Outcomes Assessment Project (SOAP-51) survey, a self-administered, health-related quality of life instrument for individuals with schizophrenia living in the community.

**METHOD:** We asked 1500 community-based clients with schizophrenia, and 150 of their caregivers (using the shortened objective version), in five ethnically and geographically diverse areas within the US to complete the SOAP-51 four times over a three-month period; client retention was 84.2%. Average age was 42.8 years, 60% males. For concurrent validation, clients rated the impact of their condition on each of SOAP-51’s eight factors; this was compared to their factor score. For discriminate validity, the caregivers assigned clients to one of four quartiles describing their perception of the client’s ability to objectively function in each factor area. Client factor scores were compared to caregiver-reported functional levels. An additional 300 clients rated the relative importance of each item.

**RESULTS:** Cronbach’s alpha for the eight factors was 0.71–0.88, test-retest reliability, 0.78–0.99. Client factor scores lowered as clients felt the condition had more negatively impacted on their lives (p < .001). Client factor scores improved with improving caregiver-perceived assessment of client functionality (p < .001). Client scores from the lowest to highest assigned quartile had average scores of 42.7%, 49.3%, 54.7%, and 60.0%, respectively. Ninety two percent of both clients and caregivers considered the survey valuable for monitoring client progress. No significant difference (p > .05) was observed in importance weights for the eight factors, or 51 items, age or gender of client, caregiver or client responses.

**CONCLUSIONS:** Concurrent and discriminatory validity show that the SOAP-51 meets psychometric characteristics for use as a client-centered outcomes measure in patient monitoring and management, and health policy decision-making.

**MH2**

**EFFECTICITY OF NURSE TELEHEALTH CARE AND PEER SUPPORT IN AUGMENTING TREATMENT OF DEPRESSION IN PRIMARY CARE**

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**OBJECTIVES:** Because clinical outcomes of depression treatment in primary care settings tend to be poor, we developed and evaluated the efficacy of two augmentations to antidepressant treatment to be delivered by primary care nurses.

**METHODS:** We conducted a randomized trial comparing usual care, telehealth care, and telehealth care plus peer support for depressed patients seen in primary care in an HMO setting. Assessments were conducted at baseline, six weeks and six months after study enrollment at two managed-care, adult primary-care clinics. Participants included 303 patients recently started on antidepressants. The intervention consisted of: telehealth care; emotional support and focused behavioral interventions in 10 seven-minute calls over four months by specially trained primary-care nurses and peer support; telephone and in-person supportive contacts by trained Health Plan members recovered from depression. Primary outcome measures were the Hamilton Rating Scale for Depression, Beck Depression Inventory, Mental and Physical Functioning (Short Form 12), and treatment satisfaction and medication adherence questionnaires.

**RESULTS:** Nurse-based telehealth patients with or without peer support more often experienced 50% improvement on the Hamilton at six weeks (50% vs. 37%, P = .01) and six months (57% vs. 38%, P = .003), and on
Recent weight gain and the cost of acute service use among individuals with schizophrenia

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OBJECTIVE: Newer antipsychotics have been associated with increased weight gain. There is also mounting evidence that this leads to noncompliance and a lower quality of life. Gaining weight is also undesirable for health reasons and may lead to increased use of health-care resources. This study considers the association between weight gain and acute service use for patients with schizophrenia.

METHODS: Questionnaires were mailed to people with schizophrenia identified through National Alliance for the Mentally Ill and the National Mental Health Association in spring 2000 (n = 390). Data presented here are from the 345 respondents who reported weight loss (n = 94, 27%), no weight change (n = 106, 31%), some weight gain (1–14lbs; n = 70, 20%), and significant weight gain (≥15lbs; n = 75, 22%) within the last six months. Acute service use was defined as emergency room (ER) visit or hospitalization. Cost values were those reported in Ernst and Hay (1994). For each individual, total costs were computed by summing across categories.

RESULTS: The group reporting significant weight gain was significantly more likely to use acute services than the other three groups (p < .001 for hospitalization, p < .005 for ER visit). The association remained significant when controlling for other variables in multivariate analyses, including age, gender, ethnicity, and overall distress. Overall costs were highest for those who gained 15 or more pounds ($9,486). Those who lost weight incurred costs of $7,400, those who did not change weight incurred costs of $4,095, and those who gained 1–14 pounds incurred costs of $3,647.

DISCUSSION: Our preliminary results suggest that recent weight gain is associated with greater use of acute services and higher costs. There are several plausible explanations. For example, physicians might change medications for people doing poorly (e.g., start a new medication after an acute psychiatric episode). Another possibility is that acute medical services are more likely to be needed after an episode of rapid weight gain.

QUALITY OF LIFE

Can health state values be predicted from health-related quality of life measures?

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OBJECTIVE: To predict Health State Values (HSV) from health-related quality of life (HRQL) assessments could, if possible, be a fruitful way to use HRQL values for health-economic evaluations. With this in mind, we investigated to what degree values from the EuroQol instrument, the EQ-5D index, and the EQ-VAS visual analog scale, could be predicted using HRQL measures for patients with respiratory diseases.

METHODS: Data from two surveys of patients with respiratory disease were used for this evaluation. The first data set was from 206 patients in Hungary suffering from asthma, and the other was from 120 patients in the northern part of Sweden with COPD. Both surveys included patients with different severities of the diseases. The HRQL instruments used in both surveys were the SF-36, a generic instrument, and St George's Respiratory Questionnaire (SGRQ), a disease-specific instrument. The two data sets were analyzed separately using a multiple logistic regression model in a stepwise manner to predict EQ-5D and EQ-VAS from the eight domains of SF-36 and the three domains of SGRQ, after transformation of EQ-5D and EQ-VAS to a 0–1 range.

RESULTS: The amount of variation in both the EQ-5D and EQ-VAS that could be explained from the combined HRQL measures was at most 56%. EQ-5D had larger values than EQ-VAS. Using SF-36 domains only as predictors gave marginally lower values. The two domains from SF-36 with best predictability explained about 90% of the reduction achieved with all 11 domains together. Using SF-36 and SGRQ have moderate precision and should be used cautiously.

Estimating patients’ preferences in treatment choices involving risk: a new modified standard gamble method

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