MEDICARE HEALTH OUTCOMES SURVEY

MCS OUTLIER EVALUATION STUDY
Cohort I (1998 – 2000)

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HSAG
HEALTH SERVICES
ADVISORY GROUP

CMS
CENTERS for MEDICARE & MEDICAID SERVICES

NCQA

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PURPOSE

The purpose of this study was to investigate the potential sources of variation in *Cohort I* Medicare Health Outcomes Survey (HOS) Mental Component Summary (MCS) scores. The first component of the study was to conduct a literature review to identify variables found to influence MCS scores. The second component was an analysis to assess the association between MCS scores and plan performance on HEDIS®[1] and CAHPS®[2] measures. Using information gathered from the MCS Variation Evaluation Questionnaire developed for this project, the final component of the study involved comparing the characteristics and programs among the negative MCS outliers, positive MCS outliers and a sample of health plans with average MCS scores.

For HOS *Cohort I* (1998-2000), there were 28 health plans with MCS scores that were at least two standard errors above or below the mean predicted change score value for the plan average. Fifteen (15) plans were below average and are considered negative outlier plans, and 13 were above and are considered positive outlier plans. There was no statistically significant variation between plans on the HOS Physical Component Summary (PCS) scores.

CMS contracted with the Health Services Advisory Group (HSAG) to perform this evaluation of MCS scores for HOS *Cohort I*. HSAG subcontracted with the National Committee for Quality Assurance (NCQA) to assist with this effort.

[1] HEDIS® is a registered trademark of the National Committee for Quality Assurance.
[2] CAHPS® is a registered trademark of the Agency for Healthcare Research and Quality.

HOS BACKGROUND

HOS is a HEDIS® outcome measure for the Medicare population in managed care. The HOS assesses the ability of Medicare+Choice Organizations (M+COs) to maintain or improve the physical and mental health of their beneficiaries over a two-year period of time. The results of the HOS are intended to: inform CMS of health plan performance; educate Medicare beneficiaries and help them make informed choices about their health care; and be used by health plans and Quality Improvement Organizations (QIOs) for quality improvement activities.

The primary outcome measure in the HOS is the SF-36®[3] Health Status survey. The SF-36® generates two summary scores, the Physical Component Summary (PCS) and the Mental Component Summary (MCS), in addition to eight scale scores (Ware et al., 1995). The survey is conducted at two points in time (a follow-up survey is administered two years after the administration of a baseline survey). For Cohort I, the baseline survey was administered in the Spring of 1998 and the follow-up survey was administered in the Spring of 2000.

The physical and mental health change scores are computed as the difference between actual and expected scores at baseline and follow-up for the two summary measures. The difference between actual and expected death rates is also accounted for in the evaluation of physical outcomes. Expected scores are calculated with statistical models that adjust for initial risk status differences using variables such as beneficiary sociodemographic characteristics, chronic conditions and baseline health status.

The primary outcomes that result from this process are binary variables that indicate whether beneficiaries had statistically significant decreases in PCS and MCS scores over the two-year period. Those beneficiaries that were alive and had a PCS score that did not change or that improved over time were designated as "PCS same or better", and those that had a MCS score that did not change or that improved over time were designated as "MCS same or better."

[3] SF-36® is a registered trademark of the Medical Outcomes Trust.

STUDY CONSTRAINTS

Prior to initiating this study, the project team was cognizant of several factors that could make it difficult to identify health plan practices that are associated with better MCS performance. The study constraints identified by the project team were as follows:

- Since the HOS is a general population survey and is not targeted at a population with a specific disease or condition, it may be difficult to link any single activity to improved MCS scores. Better MCS results may result from overall better service delivery, and not from focused quality improvement activities or disease management programs. It may prove difficult to attribute better scores to effective general management practices.

- Better than expected MCS scores are likely to result from factors outside the delivery of behavioral health services. While activities targeting depression, anxiety and other psychological conditions are likely to affect MCS scores, it is unlikely that a large number of health plan members will have been exposed to these programs because the incidence rate of diagnosed psychological disorders is relatively low. Therefore, programs that target psychological symptoms are unlikely to be the only causes of plan-level MCS score differences.

- While the relation between MCS scores and psychological disorders is clear, the relation between MCS scores and physical health is less clear. MCS or SF-36® mental health scores have been associated with physical problems such as knee pain (O'Reilly et al., 1998), chronic conditions such as diabetes (Claiborne et al., 2000), and patient involvement in treatment (Reuben et al., 1999). However, there are other studies that do not indicate a relationship between MCS scores and physical well-being (Singer et al., 1999 and Ware et al., 1998). Even though the research results are mixed, it seems likely that emotional well-being is promoted by effective physical health services, increased patient involvement and customer service.

- The public release of HOS *Cohort I* Performance Reports in October 2002 may have introduced bias into the study by influencing health plan responses to the MCS Variation Evaluation Questionnaire.

- The MCS Variation Evaluation Questionnaire required respondents to know information about programs, services and benefits their health plan offered between 1998 and 2000. Staff turnover and lack of accessible documentation were likely to make it difficult for health plan staff to respond to the questionnaire.

LITERATURE REVIEW RESULTS

Overview of Findings

HSAG conducted a review of the literature to identify the variables found to influence MCS scores. These variables were the following: specific diseases; mental health services; exercise; pain assessment and management; alcohol consumption patterns; fear of falling; and patient satisfaction. These variables positively and at times negatively affected MCS scores and health-related quality of life (HRQOL).

- The specific diseases found in the literature that significantly affect mental health functioning were: chronic obstructive pulmonary disease (COPD), asthma, rheumatoid arthritis (RA), chronic renal failure, chronic prostatitis, coronary artery bypass graft surgery (CABG), acute myocardial infarction (AMI), and obesity.

- Problem-solving treatment, on-site integrated care, daily meditation, closely monitoring patients for mental health problems, improving access to cognitive behavioral therapy are all initiatives which improve MCS scores and HRQOL.

- The literature shows that patients who engage in exercise and positive cognition improve their HRQOL. Exercise was found to improve the MCS scores and HRQOL of patients with anxiety, depression, arthritis pain, diabetes, coronary artery disease and COPD.

- In addition, patients suffering from heightened levels of chronic pain were found to experience negative cognition; moreover, negative cognition was found to increase pain. Notably, acceptance of pain was correlated with lower pain intensity, less pain related anxiety, avoidance behavior, and less depression.

- Heavy alcohol consumption patterns were found to negatively impact MCS scores and HRQOL.

- As a result of the fear of falling, some elderly restrict their activities of daily living and their independent activities of daily living. Consequently, fear of falling and the resultant activity restriction has been associated with a lower quality of life.

- Patient satisfaction has been shown to influence physical and mental health functioning. When patients felt that their physicians had met their needs, they scored higher on patient satisfaction with care. However, when patients' needs went unvoiced to their physicians, they often rated their office visits negatively. In addition, the physician perceived the patient as difficult and requiring more effort to treat. Another factor found to influence patient satisfaction was the amount of time that physicians spent with their patients. If a physician spent more time with a patient than the patient expected, then the patient experienced more satisfaction with the office visit. Furthermore, the more interruptions a patient experienced during an office visit, the less positively they rated that office visit.

Specific Diseases

The literature shows that chronic diseases can have a strong effect on HRQOL. The majority of studies focused on the following diseases: COPD, asthma, RA, chronic renal failure, chronic prostatitis, CABG, AMI, and obesity.

Quality of life for patients with COPD improved after participating in a study involving a three-week pulmonary rehabilitation program. Boueri et al. (2001) conducted a study in which 37 COPD patients with a mean age of 66 years participated in 12 exercise sessions along with psychosocial counseling and education. The instrument utilized in the study was the SF-36®, and the results of the study showed improvements in five of the nine quality-of-life scales of the SF-36®. From these results, the authors concluded that the three-week pulmonary rehabilitation program improved the HRQOL for the COPD patients.

Asthma patients report more depressive symptoms and experience a lower HRQOL. Mancuso et al. (2000) interviewed 230 patients, between the ages of 18 and 62 years of age, diagnosed with moderate asthma. The Asthma Quality of Life Questionnaire (AQLQ), SF-36®, Geriatric Depression Scale (GDS) and finally a broad question regarding current diagnoses of disease were the instruments utilized in this study. The results demonstrated that asthma patients with more depressive symptoms had lower HRQOL scores than asthma patients with similar disease activity and less depressive symptoms. Consequently, the authors suggested that psychological status indicators should be utilized when measuring outcomes in asthma, using patient-reported data.

Improvements in RA treatment showed a reduction in pain. Wiles et al. (2001) assessed RA and non-RA patients with the SF-36®. RA patients had lower SF-36® scores in all domains than did the non-RA patients. It was concluded that the results of this study could be used to set targets for improvements.

Quality of life for hemodialysis patients is significantly poorer when compared to the general population and other chronic diseases. In a study conducted by Mittal et al. (2001), one hundred and thirty-four hemodialysis patients were given SF-36® questionnaires every three months from January 1996 to December 1998. The findings showed decreases in PCS and MCS scores upon the onset of dialysis yet stability of PCS and MCS scores over time. In addition, living alone was discovered to be a significant predictor of improvement in MCS scores. The author suggested that the improvement in MCS scores could be attributed to the patients' having more autonomy and control over self-care as opposed to coping with family responsibilities and increased dependence. At the end of the study, the investigators concluded that self-assessed physical and mental health of hemodialysis patients were poorer when compared to the general population and to other chronic diseases.

Patients with chronic prostatitis were found to have lower MCS scores than subgroups of patients with congestive heart failure and diabetes mellitus. Collins et al. (2001) conducted a study in which two hundred seventy-eight men with chronic prostatitis, from six clinical research centers across the United States and Canada, were administered the Short-Form 12® (SF-12®) and the National Institutes of Health Chronic Prostatitis Symptom Index (NIH-CPSI). The findings revealed that a history of psychiatric disease along with a younger age was significantly related to worse MCS scores.

Rumsfeld et al. (1999) conducted a study in which 2480 patients undergoing CABG surgery completed the SF-36® preoperatively. Of those 2,480, one hundred and seventeen deaths occurred within 180 days postoperative. The MCS score did not predict mortality after a CABG surgery.

The SF-12® also proves to be an effective tool for assessing health status. Furthermore, it is believed to be effective in assessing the impact of interventions on quality of life after AMI. Crilley et al. (2001) integrated the SF-12® with an additional survey questionnaire to acquire information on symptoms, drug therapy, recent investigations and employment status of 149 participants who experienced their first AMI two years previously. The results indicated that the mean MCS score was lower than the "normative" controls. Also, MCS scores were strongly related to continuing chest pain at two years, level of limitation on activities of daily living and employment status. Those patients who experienced continuing chest pain had remarkably lower MCS scores than those patients who did not experience continuing chest pain. In addition, patients who were unemployed at the time of the AMI had significantly lower MCS scores than those patients who were employed or retired from work at the time of the AMI. Finally, those patients who perceived the greatest negative impact on their lives from the chest pain had significantly lower MCS scores.

A study conducted by Doll et al. (2000) revealed that overweight and obese participants have a poor rating of their health status, particularly their perception of their physical health. In this study, 13,800 randomly selected adults between the ages of 18 and 64 were mailed questionnaires. Of those 13,800 adults, 8,899 completed and returned the questionnaires. The main outcome measures of the study were body mass index, chronic illness status, and MCS and PCS scores of the SF-36®. Body mass index was divided into five categories: underweight, normal weight, overweight, moderately obese, and morbidly obese. The results indicated that body mass index was significantly linked to health status. Participants with chronic illness, other than obesity, rated both their physical and emotional well-being poorly.

In conclusion, the literature has suggested that specific diseases influenced the mental health functioning of patients. Again, the specific diseases found most often in the literature were COPD, asthma, RA, hemodialysis, chronic prostatitis, CABG, AMI and obesity. Therefore, M+COs that include disease management programs for their beneficiaries are likely to positively impact MCS scores and HRQOL.

Mental Health Services

Several mental health practices were found to influence MCS scores. In a study conducted by Schoenbaum et al. (2001), a total of 181 primary care clinicians, along with 1,356 patients who screened positive for depression, were participants. The patients were divided into three groups: Usual Care, Quality Improvement-Medications (QI-Meds) and Quality Improvement-Therapy (QI-Therapy). The method of analysis utilized was patient-level intent-to-treat analyses, and the findings indicated that QI-Therapy rated better overall in terms of Quality-Adjusted-Life-Year (QALY) when compared to QI-Meds. Schoenbaum et al. suggested that improving access to cognitive behavioral therapy for depressed primary care patients could be very beneficial. For example, patients had an increase in workdays that totaled to an additional month in a two-year period. Therefore, increased work attendance days may be interpreted as an indicator of feeling better.

Patients in primary care, who have been diagnosed with a mental health disorder, have a poorer HRQOL than those patients who have not been diagnosed with a mental health disorder. In a study conducted by Cass et al. (1999), five hundred ambulatory patients from a family practice clinic participated in a study that utilized the PRIME-MD mood and anxiety disorder modules and the SF-36®. The findings indicated that those patients who presented with symptoms below the threshold criteria of the Diagnostic and Statistical Manual (DSM)-III-R for mood and anxiety disorders were less likely to be diagnosed in a primary care setting. Consequently, primary care physicians, who depend on the criteria wholeheartedly, may be prone to under-recognize all mood and anxiety problems. Therefore, the DSM criteria may be less useful in primary care settings than in psychiatric practices.

In a community of adults with depressive disorders, problem-solving treatment was more acceptable as a modality of treatment than a course on the prevention of depression. Dowrick et al. (2000) conducted a study in which a total of 452 participants between the ages of 18 and 65 attended six individual sessions of problem-solving treatment and eight group sessions of the course on depression prevention.

Druss et al. (2001) conducted a study in which 120 Veterans Affairs (VA) participants were enrolled in either the mental health clinic or the general medical clinic. Sixty-one participants enrolled in the mental health clinic received integrated care that emphasized preventive medical care, patient education, and close partnership with mental health providers. The instrument utilized in the study was the SF-36®. The results indicated that on-site integrated care was related to improvements in medical care.

Daily meditation has been reported to improve psychological distress along with physical symptoms. It was also proved to enhance functional status and well-being and decrease physical symptoms and psychological distress in a varied population with possible long-term favorable effects. A total of one hundred and thirty six patients participated in an eight-week mindfulness-based stress reduction (MBSR) program. They were required to spend 20 minutes daily in meditation. The three instruments used were the SF-36®, Medical Symptom Checklist (MSCL), and the Symptom Checklist-90 Revised (SCL-90-R). Reibel et al. (2001) reported that the training program improved HRQOL and the physical and psychological symptoms of the heterogeneous population of patients.

While the study above showed a relationship among mental health, HRQOL and physical and psychological symptoms, a study by Kressin et al. (2000) found no such relationship. Kressin et al. utilized data collected from the Department of Veteran Affairs Normative Aging Study, the Veterans Health Study, and the VA Women's Health Project. The SF-36® was the instrument used in this study. Negative affectivity, which is a tendency to experience negative moods, was found to influence patient ratings of quality of life. The findings demonstrated that negative affectivity explained 3.5% to 10.4% of the variance in the MCS scores.

Exercise

Exercise was found to have positive effects in numerous studies conducted on various diseases. Christmas and Andersen (2000) reported that some of the benefits of exercise were: improved body composition; diminished number of falls; increased strength; reduced symptoms of depression; reduced arthritis pain; reduced risk for diabetes and coronary artery disease; and improved longevity. The authors in this study emphasized that a fitness program prescribed by a clinician must take into consideration the time available for exercise, the activity history, the activities of interest, the resources available, and any comorbidities.

In another study, physical exercise in a brightly-lit area was discovered to provide greater amelioration of atypical depressive symptoms and increased vitality than ordinary room light. Partonen et al. (1998) conducted a study in which 115 participants (ages 22 to 57) were assigned to one of three groups: (a) supervised fitness training under bright light; (b) ordinary light conditions in a gym two to three times weekly for eight weeks; (c) or supervised relaxation training once a week for eight weeks as an active placebo. The results indicated that fitness training combined with exposure to bright light was significantly more effective at improving mood than fitness training in ordinary light, or relaxation alone.

In a resistance training study, exercise was found to reduce feelings of anxiety. Perrig-Chiello et al. (1998) implemented an experimental design study in which a group of elderly, normally active volunteers (18 women and 28 men) underwent resistance training and were compared with a control group of normally active volunteers who did not undergo resistance training. The variables were muscle strength, psychological well-being, control-beliefs, cognitive speed, and memory. A pre-test and post-test were administered one week before and one week after the eight-week training intervention. The training sessions were held once a week and consisted of 10 minutes of warm-up exercises followed by eight resistance exercises on machines. The results indicated that resistance training in elderly volunteers resulted in a short and a long-term increase in muscle strength. The increase in muscular strength was associated with a decrease in anxiety and self-attentiveness/self-preoccupation. There was no parallel increase in subjective-health, well-being or memory in the exercise group. However, there were significant long-term effects in the training group for muscular strength and free recall performance one year later.

In relation to the effects of exercise and patients with COPD, exercise was found to improve some aspects of participants' lives and not improve other aspects. Emery et al. (1998) conducted a study involving 79 patients (53% female) diagnosed with COPD. The participants were randomly assigned to one of the following three groups: (a) exercise, education, and stress management; (b) education and stress management but no exercise training; or (c) waiting list.

Furthermore, the patients underwent a battery of tests to assess physiological and cognitive functioning, psychological well-being, and HRQOL at baseline and after a 10-week intervention period. The results indicated that there were benefits of endurance associated with exercise rehabilitation for cardiopulmonary patients diagnosed with COPD. However, minimal psychological effects were found among patients with COPD. Exercise along with psychosocial counseling and education showed improvements in the HRQOL for COPD patients. However, COPD patients were not found to benefit psychologically from exercise.

Although antidepressant medication has an initial, faster rate of improvement in depression management, exercise can be an effective, alternative treatment for depression in the older population. In a study conducted by Blumenthal et al. (1999), exercise treatment was compared with antidepressant medication in a group of 156 older adults (aged 50-77 years) with Major Depressive Disorder. The sample was divided into three groups: medication group, exercise group, and combination group. These three groups participated in comprehensive evaluations of depression, which included the Hamilton Rating Scale for Depression and the Beck Depression Inventory. The results showed that all three groups made comparable improvements by the end of the 16-week treatment regimen. Keeping in mind that the exercise treatments were performed in a structured and supervised setting, evidence proves that they are equally effective as medication treatment by the end of the 16-week program.

In a study by Myers et al. (1999), the Vitality Plus Scale, which consists of 10 items, was utilized to gather information from older adults regarding their perceived benefits of exercise. A number of exercisers and nonexercisers between the ages of 40 and 94 were used to assess the reliability and validity of the Vitality Plus Scale. The findings indicated that older adults reported improvements in sleeping habits, energy levels, mood levels, and overall well-being. Furthermore, these effects were reinforced by their sustained exercise participation.

In summary, numerous studies demonstrate that exercise has proven to positively influence MCS scores and HRQOL.

Pain Assessment and Management

The literature regarding pain and pain management suggests that pain management programs offered by M+COs would positively impact MCS scores and HRQOL.

Reduction of negative cognition is helpful in the treatment of chronic pain. Stroud et al. (1999) examined cognitions and beliefs of 163 chronic pain outpatients. It was found that pain beliefs and pain cognitions were conceptually and clinically distinct. Although the presence of pain affects the quality of life negatively, one study discovered that acceptance of pain positively affects the quality of life of those suffering individuals. The study showed the need to treat individuals experiencing depression and pain through symptom management and pharmacological interventions. Negative self-statements were found to hinder the adjustment of chronic pain sufferers.

In a study conducted in a university pain management center, 161 patients who were currently seeking treatment for pain completed four questionnaires upon their initial evaluation.

McCracken (1998) found that greater acceptance of pain was correlated with reports of lower pain intensity, less pain-related anxiety and avoidance, less depression, less physical and psychosocial disability, more daily uptime, and better work status in persons seeking treatment for chronic pain. In addition, regression analyses showed better adjustment on all measures of patient function, independent of perceived pain intensity.

In another study assessing pain, three different nonpharmacologic modalities of treatment for patients with nonradiating neck pain were tested for their acute analgesic response. White et al. (2000) utilized the following modalities of treatment: needles "only", local dermatomal stimulation, and remote (lower back) dermatomal stimulation in a random sequence, over the course of an 11-week study period. The "needles only" and local dermatomal stimulation methods involved the placement of 10 32-gauge acupuncture needle probes in the cervical region in relation to the location of the pain. The local dermatomal stimulation approach was different from "needles only" in that it involved an additional step that consisted of bipolar leads from a low-output electrical generator. The SF-36® and the 10-cm visual analog scales for assessing pain, physical activity, and quality of sleep were used in the assessment. The SF-36® assessment tool was readministered at the end of every three-week treatment block. The results indicated that all three modalities produced improvements compared with the prestudy administration of the SF-36®. Notably, the local dermatomal stimulation modality of treatment was significantly effective in improving pain control, physical activity, and quality of sleep.

Alcohol Consumption Patterns

Alcohol use disorders and consumption patterns seem to have a moderate influence on patients' HRQOL.

In a study by Volk et al. (1997) a total of 1,333 primary care patients completed the Alcohol Use Disorder and Associated Disabilities Interview Schedule to determine the existence of alcohol abuse or dependence disorders. In addition, the primary care patients answered questions about patterns of alcohol consumption. This study found that the participants who drank small quantities of alcohol in a frequent pattern had a better overall HRQOL than other consumption comparison groups. In addition, binge and frequent, high-quantity drinkers showed significantly lower scores in the areas of role functioning and mental health.

In a similar study, Daeppen et al. (1998) evaluated the HRQOL of alcohol-dependent patients. There were 147 patients (77% males) between the ages of 26 and 78 who were administered the SF-36®; in addition, the first 100 patients were administered the Hamilton Depression Scale (HDS), the Severity of Alcohol Dependence Questionnaire (SADQ), and the Addiction Severity Index (ASI). The results indicated that when compared to the general population, the alcohol-dependent patients scored lower on mental health functioning; however, their scores for physical functioning were closer to the general population's scores. In summary, they perceived their problems with alcohol as being more psychological than physical.

Stein et al. (1998) compared functioning in patients with substance abuse disorders with the functioning of patients with other chronic diseases. A total of 2,688 patients seeking detoxification and treatment at four alcohol and drug rehabilitation centers between the period of 3/1/92 and 7/31/93 were surveyed using the Medical Outcomes Trust Short-Form-20® (SF-20®). The findings showed that the mean scores of mental functioning for the substance abuse patients were significantly lower than the mental functioning scores for the other chronic diseases. On the contrary, the physical functioning scores were less affected for substance abuse patients than patients of other chronic diseases.

In summary, the literature on alcohol misuse strongly supports the notion that mental functioning is strongly affected while physical functioning is only moderately affected.

Fear of Falling

Fear of falling in the elderly is associated with a lower quality of life. In a study conducted by Lachman et al. (1998), an evaluation was performed on activity restriction along with an examination of the relationship between fear of falling and quality of life. In addition, a new instrument was developed that operationalized the fear of falling. The survey developed and utilized was the Survey of Activities and Fear of Falling in the Elderly (SAFE). This instrument allows a distinction to be made between those who restrict their activities because of fear of falling and those who are afraid of falling but do not restrict their activities. Twenty-two items were assessed which represented activities of daily living (ADLs) and independent activities of daily living (IADLs). There were 270 participants (22% men and 78% women) between the ages of 62 and 93. Most of the individuals experience the greatest amount of fear of falling when they go out and the surfaces are slippery. In addition, going up and down stairs, reaching for something overhead, and taking a tub bath also generated significantly high levels of fear of falling. In summary, there is evidence that fear of falling has a partial role in the amount of activity restriction and is associated with a lower quality of life.

Patient Satisfaction

Patient satisfaction influences both mental and physical well-being. In a study conducted by Guldvog (1999), 589 angina patients discharged between January 1, 1995 and December 31, 1996 were mailed survey questionnaires. After adjusting for age, sex, education, social network, health behavior, and sense of coherence, patient satisfaction with health care services accounted for 9% of the variation in the PCS and 7% of the variance in the MCS scores. In addition, it was noted that patients who perceived their physicians as caring and knowledgeable were more likely to be content with their medical treatment, along with the information received during their appointment. Therefore, the more patients feel that their medical expectations have been fulfilled by medical staff, then the greater their likelihood of having better physical and mental HRQOL six to ten weeks post discharge from hospital.

Patients' unvoiced concerns influenced their experiences during office visits. Bell et al. (2001) administered surveys to 909 patients of whom 97.6% were surveyed two weeks after an outpatient visit. Prior to the office visit, patients were asked to rate their trust in their physician, health concerns, and health status. After the office visit, patients were surveyed again and revealed various types of unvoiced needs along with ratings of their office visit satisfaction. The findings showed that the patients with unvoiced needs tended to be young, undereducated, unmarried and least likely to trust their physician. It was noted that a patient's unvoiced needs affected both the patient and the physician perceptions of the office visit negatively. Patients were less likely to perceive improvements of symptoms, and physicians tended to view those patients as requiring more effort to treat.

Another factor that influenced patient satisfaction was the amount of time spent with the physician during the office visit. In 16 primary care visits, 1,486 ambulatory patients were surveyed regarding their demographics, health status, perception of time spent before and after ambulatory visits, perception of physician feeling rushed, and visit satisfaction. Those patients who spent more time with their physician than they estimated before the visit, were significantly more satisfied with their visit. On the other hand, those patients who spent less time with the physician than they estimated before the visit were significantly less satisfied with the visit.

Interruptions during patient office visits influenced patients' ratings of satisfaction of care during office visits. Observational data were collected during 60 primary care visits. There were a total of 22 family practice and internal medicine residents who participated in the study. The types of interruptions included verbal, knocks on the door, beepers, and computer usage. It was noted that male physicians interrupted their patients more, and all resident interns interrupted female patients more than male patients. An increased number of interruptions negatively affected patients' perceptions of their office visits.

In general, the amount of time and attention patients received from their physicians determined how they rated their office visits. Those patients who received more time and attention than they estimated prior to the visit had higher patient satisfaction ratings.

ASSOCIATION BETWEEN MCS AND HEDIS/CAHPS® PERFORMANCE

Description of Analyses Performed

For the second component of the study, NCQA assessed the association between MCS scores and plan performance on HEDIS® and CAHPS® measures. HEDIS® 2000 results, which cover the 1999 measurement year, were used for this analysis. NCQA selected the 1999 measurement year because it is the midpoint of the HOS *Cohort I* data collection period. NCQA investigated the: (1) correlation between MCS scores and HEDIS/CAHPS® performance; and (2) differences in HEDIS/CAHPS® performance between positive MCS outliers and negative MCS outliers.

Correlation Analysis

Plans that scored higher and lower than expected on HOS were identified using a *t* score associated with a baseline/follow-up difference score (the *t* score variable is TMSB). To investigate the relation between HOS and HEDIS/CAHPS® performance, this *t* score was correlated with all HEDIS/CAHPS® values. A high positive correlation indicates that both scores tend to increase together, and a high negative correlation indicates that one score tends to increase as the other decreases. Spearman correlations were used rather than Pearson correlations because neither the *t* scores nor the HEDIS/CAHPS® values are normally distributed. Spearman correlations are based on ranks, not the actual values of the variables. Spearman correlations comparing HOS scores to HEDIS/CAHPS® performance were calculated for all 180 reporting units in *Cohort I*.

Analysis of Differences Between Outlier Groups

For this part of the analysis, NCQA constructed means ratios as well as performing two statistical tests on differences among the outlier groups. Means were calculated for each HEDIS/CAHPS® measure for the MCS positive outliers (high group) and MCS negative outliers (low group). The ratio of the high mean to the low mean was computed as an indication of the relative difference in average scores for the two groups. Parametric tests of mean differences (such as *t*-tests) were not employed because of the small number of plans in the high and low groups and the fact that the variables are not normally distributed. The non-parametric analog to the *t*-test, the Wilcoxon Rank Sum Test, was used to test for significant differences between the high and low *t* score groups in their HEDIS/CAHPS® performance. This test is based on pairwise comparisons of the high and low outlier scores rather than on a direct comparison of the group means. In addition, the non-parametric Kruskal-Wallis test (a generalization of the Wilcoxon test for comparison of more than two groups) was done to see if there were significant differences in HEDIS/CAHPS® scores between the high, average and low *t* score groups.

Data Preparation

In 2000, CMS consolidated reporting units to reduce the burden on health plans for reporting HEDIS®. In most states, health plans were required to only report a single set of HEDIS measures. Previously, health plans were required to report HEDIS rates by market area. The *Cohort I* HOS results were calculated at this new higher-level reporting unit. However, the HEDIS® 1999 data are reported at the lower-level market area. Therefore, NCQA had to consolidate the HEDIS® 1999 data into the new reporting units before proceeding with the analysis.

As a first step, NCQA "cross-walked" reporting units across the different years. As expected, the mapping process created cases where multiple "old" reporting units mapped to one "new" reporting unit. In these cases, the multiple HEDIS records were combined into one HEDIS® record that could be matched one-to-one with the appropriate HOS record. The total number of plans remaining after the process was 180. The records were combined by taking the weighted mean of the multiple records, where the weight was the appropriate enrollment number. HEDIS Effectiveness of Care measures were weighted by the corresponding measure of the eligible population. Other HEDIS® measures were weighted by the total enrollment or the appropriate enrollment subgroup. For example, the HEDIS® measure Total Percentage of Members Receiving Any Mental Health Services applies to male and female members of all ages, so it was weighted by the total enrollment. The measure Percentage of Male Members Age 65 or Older That Received Any Mental Health Services was weighted by the number of male enrollees aged 65 or older.

The project team removed from the analysis measures that: health plans were not required to report to CMS for HEDIS® 1999; were not relevant to the 65+ population; and/or had six or fewer health plans in an outlier group reporting the measure.

Findings

Overview

The analysis showed that all HEDIS® Effectiveness of Care measures correlate positively with HOS *t* scores. Additionally, the second set of analyses that looked at the differences among the outlier groups showed consistency with the correlation analysis findings. The means ratio analysis showed that the MCS positive outliers as a group performed better on all the HEDIS Effectiveness of Care measures, except Advising Smokers to Quit, than the MCS negative outliers. It is important to note, while the association between MCS scores and HEDIS/CAHPS® performance appears consistent, correlations were not strong or always statistically significant. This finding was not unexpected given the general lack of variability exhibited by the HOS *t* scores, which makes uncovering possible associations more difficult.

Appendix A contains tables with the results of the analysis. The results of the correlation analysis are sorted by HEDIS® domain and then in descending order by the correlation coefficient between the HOS *t* score and the HEDIS® rate. The table showing the analysis of the differences among the outlier groups is also sorted by HEDIS® domain and then in descending order based on the ratio of high to low means.

Correlation Analysis

Correlations of *t* scores with HEDIS® rates ranged from a high of positive .25 on Comprehensive Diabetes Care – Retinal Eye Exam to a low of negative .29 on DRG - Pneumonia/Pleurisy 18-85+ Discharges/1000 MM. While this range of correlations is not very strong, the analysis did uncover some trends. The most prominent trend was that all HEDIS® Effectiveness of Care (EOC) measures have a positive correlation with MCS scores. Comprehensive Diabetes Care - Poor HbA1c Control had a negative correlation; however, for this measure a lower score is better. For CAHPS®, Getting Care Quickly had the highest positive correlation of any HEDIS® or CAHPS® measure at .38. Rating of Specialist was the only CAHPS® item to correlate negatively with the MCS scores at -0.1.

Listed below are the HEDIS® Effectiveness of Care measures and CAHPS® items that had a statistically significant ($p < .05$) correlation with MCS scores:

- Getting Care Quickly (.38)
- Comprehensive Diabetes Care – Retinal Eye Exams (.25)
- Courteous and Helpful Office Staff (.24)
- How Well Doctors Communicate (.22)
- Beta Blockers After a Heart Attack (.22)
- Pneumonia Shot (.21)
- Mental Health Follow-up, 7 days (.20)
- Comprehensive Diabetes Care – Poor HbA1c Control (-.16)

The following mental health measures placed near the high end of the correlation range: Mental Health Utilization - Percent of Members Receiving Any Mental Health Services; Mental Health Utilization - Average Inpatient Length of Stay; and Antidepressant Medication Management – Optimal Practitioner Contacts for Medication Management. Financial indicators such as the Percent Change in Net Worth and Actual Reserves Between 1998 and 1999, and Years in Business also tended to be near the top of the correlation range. In the Health Plan Stability domain, the Turnover Rate for Primary Care Practitioners (PCPs) correlated negatively with the *t* score. Therefore, low PCP turnover correlates positively with the *t* score.

Negative correlation appeared most often in the Frequency of Selected Procedures measures in the Use of Services domains. The following utilization measures had a negative correlation with MCS scores: coronary artery bypass graft (CABG); cholecystectomy; carotid endarterectomy; cardiac catheterizations; reduction of fracture femur; and angioplasty. In the Cost of Care domain, discharges of High-Cost, High-Occurrence DRGs for Pulmonary, Cerebrovascular and Pneumonia/Pleurisy groups correlated negatively with the *t* score.

Analysis of Differences Among Outlier Groups

The biggest differences between the 13 plans with the highest MCS scores and the 15 with the lowest MCS scores are found in the Effectiveness of Care, Plan Stability and Use of Services domains. Rates for the following measures were eight (8) to twenty (20) percentage points higher among the high-MCS plans: Cholesterol Management After Acute Cardiovascular Event – Screening and Control; Comprehensive Diabetes Care – Hemoglobin A1c (HbA1c) Tested, HbA1c Poorly Controlled (lower for the high-MCS plans), Eye Exams Performed; and Beta-Blocker Treatment After a Heart Attack. The PCP turnover rate was also 10 points higher in low-MCS plans. High-MCS plans were in business an average of three to six years longer than low-MCS plans. High-MCS plans have 3 to 10 times the percentages of members receiving mental health day/night services than low-MCS plans. High-MCS plans tend to perform fewer procedures such as cholecystectomies, carotid endarterectomies, reduction of fracture femurs, cardiac catheterizations and CABGs than low-MCS plans.

Differences in CAHPS® results between high-MCS plans and low-MCS plans were smaller than the differences in the HEDIS® clinical measures. Getting Care Quickly (1.05) had the largest ratio of high group mean to low group mean, while Rating of Specialist (.95) had the lowest ratios.

Based on the Wilcoxon Rank Sum Test, the following HEDIS® Effectiveness of Care measures had a statistically significant ($p < .05$) difference in performance between the positive MCS outliers and negative MCS outliers:

- Beta Blockers After a Heart Attack
- Breast Cancer Screening
- Cholesterol Management-Control
- Cholesterol Management – Screening
- Comprehensive Diabetes Care - HbA1c Screening
- Comprehensive Diabetes Control – Retinal Eye Exams
- Comprehensive Diabetes Care - Nephropathy Monitored

MCS VARIATION EVALUATION QUESTIONNAIRE

Survey Instrument

Using information gathered from the MCS Variation Evaluation Questionnaire developed for this project, the final component of the study involved comparing the characteristics and programs among the negative MCS outliers, positive MCS outliers and a sample of health plans with average MCS scores. In developing the survey instrument, the project team decided to limit the number of items as well as use as many closed ended or "check box" questions as possible for two reasons. First, ascertaining health plan activity that occurred during the period covered by HOS *Cohort I* (1998 – 2000), and not current activity, was the objective of the questionnaire. The project team was cognizant that this would require respondents to answer questions about plan programs and activities that occurred two to four years before the survey. Respondents to the questionnaire, many of who were not with the health plan in 1998–2000, were unlikely to know the details of these previous activities. Second, health plan participation in this study was voluntary. A lengthy questionnaire that would take extensive time and effort to complete would likely lead to low response rates.

In developing the questionnaire, the project team identified areas that could directly or indirectly impact MCS scores. After a list of items was created, the team eliminated items that it thought were unlikely to be health plan sponsored activities or to be too difficult for health plan personnel to respond to in a short survey. HSAG staff that recently worked at health plans were recruited to pilot test a draft version of the questionnaire before the instrument was sent to the health plans.

The MCS Variation Evaluation Questionnaire has the following sections:

I. General Information
II. Beneficiary Programs – disease management programs, etc.
III. Behavioral Health Practice Guidelines/Educational Materials
IV. Behavioral Health Member Education and Outreach
V. Benefits and Coverage
VI. Behavioral Health Vendors
VII. Arrangement with Public Health, Educational and Social Services Organizations
VIII. Quality Improvement Activities

Appendix B contains a copy of the MCS Variation Evaluation Questionnaire.

Survey Administration

Out of the 28 *Cohort I* MCS positive and negative outlier plans, eight (8) of these plans were no longer in business and therefore unavailable to participate in the study. The project team randomly selected twenty (20) additional health plans to receive the survey in order to create a control group for the study. After determining the study sample, HSAG contacted the Chief Executive Officers (CEOs) of each health plan to inform them of the study and its goals, as well as to identify a primary contact in the plan that would be responsible for the completion of the questionnaire.

Results

Out of the 48 health plans in the study sample, the project team received 29 responses and 11 plans refused to participate. Out of the 29 responses to the questionnaire: nine (9) were positive outliers; seven (7) were negative outliers; and thirteen (13) were average performing plans.

The project team anticipated that the survey might find obvious and significant differences in activities and programs offered by negative and positive outliers. However, upon tabulating the results, the project team found few discernable differences among negative and positive outliers. The primary identifiable differences appeared in plan size and NCQA Accreditation status. A greater percentage of the positive outliers were small health plans in terms of enrollment and had Excellent accreditation status. One potential explanation for the plan size finding is that smaller plans are more likely to know the needs of their members and to be able to better manage their care. Excellent accreditation status, which is NCQA's highest accreditation outcome, is granted to plans that demonstrate levels of service and clinical quality that meet or exceed NCQA's standards for quality improvement, utilization management and consumer protection. Plans earning this accreditation level must also achieve HEDIS results that are in the highest range of national or regional performance.

Appendix C contains the findings from the MCS Variation Evaluation Survey.

It is important to note the limitations of this survey. First, there was a small number of outlier plans and an even smaller number of outlier plans that returned questionnaires. With such small numbers, results of the survey have to be interpreted cautiously because the response of each plan has such a large impact on the results. For example, if four (4) negative outliers indicated they had a specific program, this represents 57 percent of all negative outliers. If one additional plan, or five plans, has the program this increases to 71 percent of negative outliers. Second, for the reasons mentioned in the previous section, the project team limited the questionnaire to identifying the existence of programs and activities and did not attempt to get details that would allow the project team to gauge the effectiveness of programs and activities. While negative MCS outlier plans may have similar programs as the positive outliers, the project team does not have the information to evaluate the effectiveness of the programs.

Overall Plan Characteristics

Seventy-eight (78) percent of the positive outliers responding were small plans (less than 25,000 members) compared to only 29 percent of the negative outliers. Comparative results of the accreditation status of the plans show that a disparity exists between negative and positive outliers. Twenty-three (23) percent of positive outliers had an NCQA accreditation status of Excellent for their Medicare product-line, while none of the negative outlier plans were deemed Excellent.

Disease Management Programs

Surprisingly, based on the survey responses, fewer disease management programs existed in the positive outliers than in the negative outliers. The number of disease management programs among the seven (7) negative outliers returning surveys increased from 19 in 1998 to 23 in 2000, while the programs in the nine (9) positive outliers returning surveys was 21 in 1999 and 25 in 2000. It is interesting to note that more positive outliers offered depression management programs (44 percent) for beneficiaries than did negative outliers (29 percent). Forty-six (46) percent of the average performing plans offered depression management programs, similar to the positive outliers.

The most common disease management programs were:

- Negative Outlier Plans – CHF, COPD/Asthma, and Diabetes
- Average Plans – Diabetes, COPD/Asthma, and CHF
- Positive Outlier Plans – Diabetes, Depression, and CHF

The survey also inquired about the number and type of social support programs a plan offered during the study timeframe. Respondents were asked to report whether or not they offered programs such as bereavement and stress management, depression screening, or fitness classes. From 1998 to 2000, the negative outliers offering these programs ranged from 14 percent to 71 percent, while the positive outliers ranged from 11 percent to 22 percent.

Behavioral Health Practice Guidelines/Educational Materials

A significant number of both positive and negative outlier plans offered practice guidelines, conferences and screening tools to providers in the areas of depression and substance abuse. Similar to disease management, a higher percentage of negative outlier plans compared to positive outliers offered these services. For example, between 1998-2000, 86 percent of negative outliers compared to 67 percent of positive outlier plans provided clinical practice guidelines for depression to providers.

Behavioral Health Education and Outreach Activities

During the study period, positive outliers went from providing more member education and outreach than negative outliers to less. In 1998, 67 percent of positive outliers and only 43 percent of negative outliers mailed newsletters and publications to members that contained information on behavioral health care topics. However, by 2000, the number of positive outliers providing materials was down to 44 percent, while negative outlier plans were up to 71 percent. In addition, 22 percent of positive outliers provided some behavioral health screenings at local events, while no negative outliers performed these types of screenings.

Benefits and Coverage

Benefits and coverage across groups varied greatly. The average mental health copay ranged from $12 in 1998 to $16 in 2000 for negative outliers and from $13 in 1998 to $11 in 2000 for positive outliers. Plans required prescription co-pays and had annual limits. The positive outlier plans had average copays from $7 to $30 depending if the drug was a generic and/or was in a formulary. On the other hand, negative outlier plans had copays of $6 to $15 in 1998, which increased to $7 to $37 dollars in 2000.

Behavioral Health Vendors

All of the respondents from negative outlier plans contracted with behavioral health vendors while less than half (44 percent) of the respondents from positive outlier plans used vendors. Given the small number of plans in the survey, it is difficult to ascertain the significance of this finding.

Arrangements with Public Health, Educational, and Social Service Organizations

Both positive and negative outlier plans had social service arrangements that offered transportation and meals to beneficiaries. These services are offered through arrangements with such programs as Meals on Wheels and various local transportation services. Unfortunately, several health plans did not respond to this section of the questionnaire. Also, even for health plans that did respond, many did not provide information on the number of referrals made to particular organizations.

Quality Improvement Activities

All plans conducted at least one but often several quality improvement activities focused on behavioral health care between 1998 and 2000 for Medicare beneficiaries. Areas of focus include: depression screening and management; coordination of care between primary care providers and behavioral health providers; and follow-up after hospitalization for mental illness.

CONCLUSIONS AND NEXT STEPS

This study was unable to link better MCS performance to specific health plan activities or characteristics. The inability to find specific interventions is most likely related to the multitude of diseases and interventions that can affect MCS scores and the general focus of the HOS measure. As the literature review demonstrated, there are many different types of diseases and interventions that affect SF-36® MCS scores. Additionally, the HOS is administered to a sample of a plan's entire Medicare beneficiary population. HOS is not targeted to beneficiaries with particular diseases or conditions. Therefore, the interventions that influence MCS scores will depend on the conditions and diseases afflicting particular individuals.

This analysis did show that there was a positive correlation between HOS MCS performance and performance on HEDIS® and CAHPS® measures, which are well-established indicators of plan performance covering important clinical areas, access to care, and patient satisfaction. It is important to note that while the correlation between MCS and HEDIS/CAHPS® results was remarkably consistent in its direction, for many measures the correlation was not particularly strong or statistically significant. This finding is not unexpected given the lack of variation in plan *Cohort I* MCS scores.

The findings from the other component of the analysis, the MCS Variation Questionnaire, were less conclusive. No clear trends emerged regarding the existence of programs or health plan features related to better MCS scores. The primary constraint to this part of the study was the small number of health plans with outlier status and the even smaller number of completed surveys received from the outlier plans. The project team was able to obtain completed surveys from seven (7) out of 15 negative outliers and nine (9) out of 13 positive outliers. Another limiting factor was that the survey only measured the existence of programs and not the effectiveness of these programs.

To further investigate the correlation of HOS scores with HEDIS® and CAHPS® performance, the project team has identified the following additional analyses that could be conducted in the future:

- Determine if SF-36® scales correlate with HEDIS® and CAHPS® measures. Health plan Cohort I scale scores were not available to the project team because they are not an output of QualityMetric's SF-36® on-line scoring software. Additional calculations would need to be performed on the data set to get the scale scores.

- Determine if health plan PCS scores correlate with HEDIS® and CAHPS® measures. This analysis would allow us to determine if the same positive correlation to HEDIS/CAHPS® measures we saw with MCS scores also exists for PCS scores.

- Determine if health plan PCS scores correlate with MCS scores. This analysis would investigate if there is an association between plan PCS scores and MCS scores.

- Determine if HOS scores (PCS and MCS) for respondents with specific conditions (e.g., diabetes and myocardial infarction) are correlated with health plan performance on AMI HEDIS® measures that cover these conditions (e.g., Comprehensive Diabetes Care, Beta-Blocker Treatment After a Heart Attack, and Cholesterol Management After Acute Cardiovascular Events)

The analyses above could be performed with both *Cohort I* results as well as the recently calculated *Cohort II* results.

HOS is a patient-centered outcome measure that assesses the results of care across multiple conditions and settings. This is a source of both the measure's strength and weakness. It is a strength because traditionally performance measures have assessed process or intermediate outcomes (e.g., blood pressure, hemoglobin levels, etc.). Additionally, performance measures usually only cover a single condition and/or services delivered in a single setting. For the elderly, who usually suffer from multiple conditions and get care from a multitude of providers in many different settings, HOS measures the net results of this care. The HOS measure assesses whether the care a patient received has been successful in improving or maintaining a person's functional health status. The HOS measures what is most important to Medicare patients, the ability to maintain their level of independence and quality of life. The difficulty of this approach is that actions health plans and providers can take to improve performance are not as readily apparent as they are for traditional performance measures.

To improve HOS scores, health plans need to implement initiatives aimed at prevalent conditions, diseases and geriatric syndromes that affect health status. A starting point for health plan efforts should be the list of chronic conditions that an analysis of HOS data conducted by the Agency for Healthcare Research and Quality (AHRQ) and the Health Assessment Lab has identified as being most associated with poor mental functioning. These conditions and diseases include: urinary incontinence; difficulty hearing; sciatica; inflammatory bowel disease (IBD); other heart; and asthma/COPD. Health plans should look at their individual HOS results to further refine the prioritization of conditions. Additionally, CMS also provides HOS member-level data to all QIOs. Health plans can engage their state QIO for assistance with interpreting and acting on HOS results.

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APPENDIX A
Correlation Analysis:
Correlation Between HOS MCS *Cohort I* MCS Scores and HEDIS Results

HEDIS Domain	Measure Name	Rate Name	Correlation: TMSB & HEDIS	P-value	N
Access/ Availability of Care	Adults' Access to Prev/Amb Health Services	AAP - Rate 65+	0.080041	0.300917	169
Cost of Care	High-Occurrence/High-Cost DRGs	DRG - Pneumonia/Pleurisy 18-85+ Avg Cst	0.195137	0.110784	68
Cost of Care	High-Occurrence/High-Cost DRGs	DRG - Respiratory 0-85+ Tot Avg Cst	0.186251	0.119907	71
Cost of Care	High-Occurrence/High-Cost DRGs	DRG - Respiratory 0-85+ Tot ALOS	0.179114	0.114238	79
Cost of Care	High-Occurrence/High-Cost DRGs	DRG - Heart Failure 0-85+ Avg Cst	0.162475	0.175816	71
Cost of Care	High-Occurrence/High-Cost DRGs	DRG - Pulmonary Disease 0-85+ Avg Cst	0.155734	0.194673	71
Cost of Care	High-Occurrence/High-Cost DRGs	DRG - Pneumonia/Pleurisy 18-85+ ALOS	0.127136	0.273768	76
Cost of Care	High-Occurrence/High-Cost DRGs	DRG - Heart Failure 0-85+ ALOS	0.124854	0.272932	79
Cost of Care	High-Occurrence/High-Cost DRGs	DRG - Cardiac 0-85+ Tot Avg Cst	0.124782	0.299816	71
Cost of Care	High-Occurrence/High-Cost DRGs	DRG - Cardiac 0-85+ Tot ALOS	0.122347	0.282756	79
Cost of Care	High-Occurrence/High-Cost DRGs	DRG - Pulmonary Disease 0-85+ ALOS	0.120962	0.28828	79
Cost of Care	High-Occurrence/High-Cost DRGs	DRG - Cerebrovasc Dsr Expt TIA 0-85+ Avg Cst	0.058384	0.628648	71
Cost of Care	High-Occurrence/High-Cost DRGs	DRG - Cerebrovasc Dsr Expt TIA 0-85+ ALOS	0.033204	0.771437	79
Cost of Care	High-Occurrence/High-Cost DRGs	DRG - Angina Pectoris 0-85+ Ds/1k MM	0.026948	0.813631	79
Cost of Care	Rate Trends	TRE - Rate Trends 1997	0.021918	0.872614	56
Cost of Care	High-Occurrence/High-Cost DRGs	DRG - Cerebro Reattach Proc 0-85+ ALOS	0.000779	0.994564	79
Cost of Care	High-Occurrence/High-Cost DRGs	DRG - Joint/Limb Reattachment 0-85+ Avg Cst	-0.00642	0.957926	70

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HEDIS Domain	Measure Name	Rate Name	Correlation: TMSB & HEDIS	P-value	N
Cost of Care	High-Occurrence/High-Cost DRGs	DRG - Cerebro Reattach Proc 0-85+ Avg Cst	-0.01224	0.919304	71
Cost of Care	Rate Trends	TRE - Pct Change 1998	-0.02663	0.838591	61
Cost of Care	High-Occurrence/High-Cost DRGs	DRG - Joint/Limb Reattachment 0-85+ Ds/1k MM	-0.03101	0.786146	79
Cost of Care	High-Occurrence/High-Cost DRGs	DRG - Angina Pectoris 0-85+ ALOS	-0.03414	0.769715	76
Cost of Care	Rate Trends	TRE - Pct Change 1997	-0.04199	0.805094	37
Cost of Care	Rate Trends	TRE - Pct Change 1999	-0.05455	0.673708	62
Cost of Care	High-Occurrence/High-Cost DRGs	DRG - Joint/Limb Reattachment 0-85+ ALOS	-0.0608	0.596948	78
Cost of Care	High-Occurrence/High-Cost DRGs	DRG - Angina Pectoris 0-85+ Avg Cst	-0.07921	0.520833	68
Cost of Care	Rate Trends	TRE - Tot Actual Expense PMPM 1997	-0.11008	0.398383	61
Cost of Care	Rate Trends	TRE - Rate Trends 1998	-0.11938	0.367798	59
Cost of Care	Rate Trends	TRE - Tot Actual Expense PMPM 1999	-0.12765	0.310919	65
Cost of Care	High-Occurrence/High-Cost DRGs	DRG - Cardiac 0-85+ Tot Ds/1k MM	-0.15752	0.165612	79
Cost of Care	Rate Trends	TRE - Tot Actual Expense PMPM 1998	-0.18398	0.152298	62
Cost of Care	High-Occurrence/High-Cost DRGs	DRG - Heart Failure 0-85+ Ds/1k MM	-0.20124	0.075337	79
Cost of Care	Rate Trends	TRE - Rate Trends 1999	-0.21288	0.102453	60
Cost of Care	High-Occurrence/High-Cost DRGs	DRG - Pulmonary Disease 0-85+ Ds/1k MM	-0.24457	0.029836	79
Cost of Care	High-Occurrence/High-Cost DRGs	DRG - Cerebro Reattach Proc 0-85+ Ds/1k MM	-0.25093	0.025712	79
Cost of Care	High-Occurrence/High-Cost DRGs	DRG - Cerebrovasc Dsr Expt TIA 0-85+ Ds/1k MM	-0.27059	0.015868	79
Cost of Care	High-Occurrence/High-Cost DRGs	DRG - Pneumonia/Pleurisy 18-85+ Ds/1k MM	-0.2873	0.010251	79
Effectiveness of Care	Comprehensive Diabetes Care	CDC - Rate - Eye Exams	0.245386	0.000962	178

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HEDIS Domain	Measure Name	Rate Name	Correlation: TMSB & HEDIS	P-value	N
Effectiveness of Care	Beta-Blocker Treatment After a Heart Attack	BBH - Rate	0.217862	0.011137	135
Effectiveness of Care	Follow-up Hospital Mental Illness	FUH - Rate - 7 Days	0.199202	0.039684	107
Effectiveness of Care	Antidepressant Medication Management	AMM - Rate - Contacts	0.171759	0.076895	107
Effectiveness of Care	Cholesterol Management After Acute Events	CHM - Rate - LDL-C lvl <130mg/dL 60-365	0.134977	0.111827	140
Effectiveness of Care	Controlling High Blood Pressure	CBP - Rate	0.130382	0.107027	154
Effectiveness of Care	Breast Cancer Screening	BCS - Rate	0.102959	0.170222	179
Effectiveness of Care	Comprehensive Diabetes Care	CDC - Rate - HbA1c Testing	0.083959	0.266548	177
Effectiveness of Care	Antidepressant Medication Management	AMM - Rate - Acute Phase	0.08294	0.388999	110
Effectiveness of Care	Follow-up Hospital Mental Illness	FUH - Rate - 30 Days	0.074317	0.4468	107
Effectiveness of Care	Comprehensive Diabetes Care	CDC - Rate - Monitoring Diabetic Nephropathy	0.068529	0.366143	176
Effectiveness of Care	Antidepressant Medication Management	AMM - Rate - Continuation Phase	0.039867	0.679228	110
Effectiveness of Care	Cholesterol Management After Acute Events	CHM - Rate - LDL-C Screening 60-365	0.03666	0.661554	145
Effectiveness of Care	Comprehensive Diabetes Care	CDC - Rate - Lipid Control	-0.00924	0.904255	172
Effectiveness of Care	Comprehensive Diabetes Care	CDC - Rate - Lipid Profile	-0.0346	0.647498	177
Effectiveness of Care	Comprehensive Diabetes Care	CDC - Rate - Poor HbA1c Control	-0.16306	0.03415	169
Health Plan Descriptive Information	Practitioner Compensation	PAYa - Cap w/Bns Pct	0.227388	0.095004	55
Health Plan Descriptive Information	Practitioner Compensation	PAYa - Oth Pct	0.12613	0.363449	54

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HEDIS Domain	Measure Name	Rate Name	Correlation: TMSB & HEDIS	P-value	N
Health Plan Descriptive Information	Practitioner Compensation	PAYa - FFS w/Bns Pct	0.111142	0.428189	53
Health Plan Descriptive Information	Board Certification/Residency Completion	BCR - Geriatricians Board Cert Pct	0.110378	0.194194	140
Health Plan Descriptive Information	Practitioner Compensation	PAYa - FFS w/withld Pct	0.098905	0.468316	56
Health Plan Descriptive Information	Total Enrollment by Percentage	ENT - Tot Enr Pct Tot Other	0.095215	0.244851	151
Health Plan Descriptive Information	Board Certification/Residency Completion	BCR - PCP Board Cert Pct	0.08913	0.252024	167
Health Plan Descriptive Information	Board Certification/Residency Completion	BCR - Geriatricians Resi Completion Pct	0.077844	0.369496	135
Health Plan Descriptive Information	Board Certification/Residency Completion	BCR - PCP Resi Completion Pct	0.056475	0.47812	160
Health Plan Descriptive Information	Total Enrollment by Percentage	ENT - Tot Enr Pct Tot Commercial	0.049484	0.520394	171
Health Plan Descriptive Information	Board Certification/Residency Completion	BCR - Oth Specialists Board Cert Pct	0.044214	0.572826	165
Health Plan Descriptive Information	Board Certification/Residency Completion	BCR - Oth Specialists Resi Completion Pct	0.036087	0.651559	159
Health Plan Descriptive Information	Practitioner Compensation	PAYa - Cap w/withld Pct	-0.00113	0.993558	54
Health Plan Descriptive Information	Practitioner Compensation	PAYa - Sal w/Bns Pct	-0.01339	0.925682	51

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HEDIS Domain	Measure Name	Rate Name	Correlation: TMSB & HEDIS	P-value	N
Health Plan Descriptive Information	Enrollment by Product Line	ENPa - Enr by Product Line Tot F	-0.01563	0.835493	179
Health Plan Descriptive Information	Enrollment by Product Line	ENPa - Enr by Product Line Tot Tot	-0.01812	0.80975	179
Health Plan Descriptive Information	Enrollment by Product Line	ENPa - Enr by Product Line Tot M	-0.02072	0.783035	179
Health Plan Descriptive Information	Total Enrollment by Percentage	ENT - Tot Enr Pct Tot Medicaid	-0.05741	0.472248	159
Health Plan Descriptive Information	Practitioner Compensation	PAYa - Sal w/o withld/Bns Pct	-0.06291	0.65132	54
Health Plan Descriptive Information	ENT Tot Enrollment (percent)	ENT - Tot Enr Pct Tot Medicare	-0.17229	0.024234	171
Health Plan Descriptive Information	Practitioner Compensation	PAYa - Cap w/o withld/Bns Pct	-0.17547	0.179903	60
Health Plan Descriptive Information	Practitioner Compensation	PAYa - FFS w/o withld/Bns Pct	-0.18103	0.166293	60
Health Plan Stability	Indicators of Financial Stability	IFS - Actual reserves held Pct Change 98-99	0.235336	0.043548	74
Health Plan Stability	Indicators of Financial Stability	IFS - Net worth Pct Change 98-99	0.199288	0.088704	74
Health Plan Stability	Indicators of Financial Stability	IFS - Actual reserves held Change 98-99	0.167932	0.152663	74
Health Plan Stability	Years in Business/Total Membership	YIB - Years in Bus. HMO-Tot	0.161407	0.031366	178
Health Plan Stability	Indicators of Financial Stability	IFS - Days in unpaid claims Change 98-99	0.13033	0.268386	74
Health Plan Stability	Years in Business/Total Membership	YIB - Membership PPO-Tot	0.124452	0.153507	133
Health Plan Stability	Indicators of Financial Stability	IFS - Days in unpaid claims Pct Change 98-99	0.099956	0.396808	74

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HEDIS Domain	Measure Name	Rate Name	Correlation: TMSB & HEDIS	P-value	N
Health Plan Stability	Indicators of Financial Stability	IFS - Administrative loss ratio Pct Change 98-99	0.094596	0.413166	77
Health Plan Stability	Indicators of Financial Stability	IFS - Operating profit margin Pct Change 98-99	0.093028	0.433736	73
Health Plan Stability	Indicators of Financial Stability	IFS - Administrative loss ratio Change 98-99	0.091654	0.427907	77
Health Plan Stability	Years in Business/Total Membership	YIB - Years in Bus. PPO-Tot	0.086803	0.318626	134
Health Plan Stability	Indicators of Financial Stability	IFS - Net worth Change 98-99	0.086211	0.465173	74
Health Plan Stability	Indicators of Financial Stability	IFS - Tot Membership Change 98-99	0.079373	0.492594	77
Health Plan Stability	Indicators of Financial Stability	IFS - Days cash on hand Change 98-99	0.07472	0.52983	73
Health Plan Stability	Indicators of Financial Stability	IFS - Debt-to-Svs ratio Change 98-99	0.065217	0.639406	54
Health Plan Stability	Years in Business/Total Membership	YIB - Membership POS-Tot	0.054184	0.503102	155
Health Plan Stability	Indicators of Financial Stability	IFS - Minimum Reserve Req Change 98-99	0.044375	0.723494	66
Health Plan Stability	Years in Business/Total Membership	YIB - Tot Membership Tot	0.044045	0.558251	179
Health Plan Stability	Indicators of Financial Stability	IFS - Minimum Reserve Req Pct Change 98-99	0.042706	0.733499	66
Health Plan Stability	Indicators of Financial Stability	IFS - Days in receivables Pct Change 98-99	0.040954	0.729008	74
Health Plan Stability	Indicators of Financial Stability	IFS - Overall profit margin Pct Change 98-99	0.038951	0.741783	74
Health Plan Stability	Practitioner Turnover	PTU - Provider Turnover Rate for NonPCP	0.037073	0.806761	46
Health Plan Stability	Indicators of Financial Stability	IFS - Net income Pct Change 98-99	0.032265	0.78202	76
Health Plan Stability	Indicators of Financial Stability	IFS - Ratio Cash-Claims Payable Change 98-99	0.029071	0.811183	70
Health Plan Stability	Years in Business/Total Membership	YIB - Years in Bus. POS-Tot	0.028424	0.72553	155
Health Plan Stability	Indicators of Financial Stability	IFS - Days cash on hand Pct Change 98-99	0.014211	0.905017	73

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HEDIS Domain	Measure Name	Rate Name	Correlation: TMSB & HEDIS	P-value	N
Health Plan Stability	Indicators of Financial Stability	IFS - Ratio Cash-Claims Payable Pct Change 98-99	0.006302	0.958704	70
Health Plan Stability	Years in Business/Total Membership	YIB - Membership HMO-Tot	0.004266	0.954929	178
Health Plan Stability	Indicators of Financial Stability	IFS - Operating profit margin Change 98-99	-0.00029	0.998008	77
Health Plan Stability	Indicators of Financial Stability	IFS - Days in receivables Change 98-99	-0.00201	0.986407	74
Health Plan Stability	Indicators of Financial Stability	IFS - Net income Change 98-99	-0.01559	0.893697	76
Health Plan Stability	Indicators of Financial Stability	IFS - Overall profit margin Change 98-99	-0.01564	0.892579	77
Health Plan Stability	Indicators of Financial Stability	IFS - Medical Loss ratio Change 98-99	-0.01621	0.888726	77
Health Plan Stability	Indicators of Financial Stability	IFS - Overall Loss Ratio Change 98-99	-0.03315	0.774687	77
Health Plan Stability	Indicators of Financial Stability	IFS - Medical Loss ratio Pct Change 98-99	-0.03854	0.739282	77
Health Plan Stability	Indicators of Financial Stability	IFS - Tot Membership Pct Change 98-99	-0.04203	0.716678	77
Health Plan Stability	Indicators of Financial Stability	IFS - Overall Loss Ratio Pct Change 98-99	-0.04917	0.671107	77
Health Plan Stability	Indicators of Financial Stability	IFS - Tot Revenue Change 98-99	-0.14007	0.224379	77
Health Plan Stability	Disenrollment	DIS - Disenrollment Rate	-0.14618	0.181895	85
Health Plan Stability	Practitioner Turnover	PTU - Provider Turnover Rate for PCP	-0.1491	0.052311	170
Health Plan Stability	Indicators of Financial Stability	IFS - Tot Revenue Pct Change 98-99	-0.15437	0.180093	77
Health Plan Stability	Indicators of Financial Stability	IFS - Debt-to-Svs ratio Pct change 98-99	-0.21846	0.31662	23
Use of Services	Mental Health Utilization-Percentage of Members Receiving Services	MPTa - MH Svs Any 65+ M Pct	0.18229	0.023653	154
Use of Services	Chemical Dependency Utilization-Inpatient Discharges and ALOS	CIPa - CD IP Tot ALOS	0.178911	0.023598	160

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HEDIS Domain	Measure Name	Rate Name	Correlation: TMSB & HEDIS	P-value	N
Use of Services	Mental Health Utilization-Inpatient Discharges and ALOS	MIPa - MH Inpat 65+ F ALOS	0.178267	0.023231	162
Use of Services	Mental Health Utilization-Percentage of Members Receiving Services	MPTa - MH Svs Any 65+ Tot Pct	0.165913	0.039741	154
Use of Services	Mental Health Utilization-Percentage of Members Receiving Services	MPTa - MH Svs Any Tot M Pct	0.159375	0.048346	154
Use of Services	Chemical Dependency Utilization-Percentage of Members Receiving Services	CPTa - CD Svs Any 65+ M Pct	0.156754	0.04993	157
Use of Services	Mental Health Utilization-Percentage of Members Receiving Services	MPTa - MH Svs Any Tot Pct	0.155136	0.054713	154
Use of Services	Frequency of Selected Procedures	FSP - Total Hip Replacement M 85+ Procs/1000	0.154992	0.046162	166
Use of Services	Mental Health Utilization-Inpatient Discharges and ALOS	MIPa - MH Inpat 65+ Tot ALOS	0.153653	0.050921	162
Use of Services	Chemical Dependency Utilization-Inpatient Discharges and ALOS	CIPa - CD IP Tot M ALOS	0.148922	0.064403	155
Use of Services	Chemical Dependency Utilization-Inpatient Discharges and ALOS	CIPa - CD IP 65+ M ALOS	0.148315	0.07105	149
Use of Services	Mental Health Utilization-Percentage of Members Receiving Services	MPTa - MH Svs Amb 65+ M Pct	0.148303	0.065532	155
Use of Services	Mental Health Utilization-Inpatient Discharges and ALOS	MIPa - MH Inpat Tot ALOS	0.14721	0.061572	162
Use of Services	Mental Health Utilization-Inpatient Discharges and ALOS	MIPa - MH Inpat Tot F ALOS	0.145841	0.064056	162

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HEDIS Domain	Measure Name	Rate Name	Correlation: TMSB & HEDIS	P-value	N
Use of Services	Mental Health Utilization-Percentage of Members Receiving Services	MPTa - MH Svs Any 65+ F Pct	0.145558	0.071669	154
Use of Services	Mental Health Utilization-Inpatient Discharges and ALOS	MIPa - MH Inpat Tot M ALOS	0.14467	0.066245	162
Use of Services	Mental Health Utilization-Percentage of Members Receiving Services	MPTa - MH Svs Any Tot F Pct	0.143314	0.076203	154
Use of Services	Chemical Dependency Utilization-Inpatient Discharges and ALOS	CIPa - CD IP 65+ Tot ALOS	0.142478	0.076013	156
Use of Services	Chemical Dependency Utilization-Percentage of Members Receiving Services	CPTa - CD Svs Any 65+ Tot Pct	0.138586	0.083459	157
Use of Services	Chemical Dependency Utilization-Percentage of Members Receiving Services	CPTa - CD Svs Amb 65+ F Pct	0.133854	0.095735	156
Use of Services	Mental Health Utilization-Inpatient Discharges and ALOS	MIPa - MH Inpat 65+ M ALOS	0.133043	0.094561	159
Use of Services	Mental Health Utilization-Percentage of Members Receiving Services	MPTa - MH Svs Inpat 65+ F Pct	0.126945	0.11312	157
Use of Services	Chemical Dependency Utilization-Percentage of Members Receiving Services	CPTa - CD Svs Any 65+ F Pct	0.124791	0.120621	156
Use of Services	Chemical Dependency Utilization-Percentage of Members Receiving Services	CPTa - CD Svs Amb 65+ Tot Pct	0.12034	0.13455	156
Use of Services	Mental Health Utilization-Percentage of Members Receiving Services	MPTa - MH Svs Amb Tot M Pct	0.119616	0.138213	155

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HEDIS Domain	Measure Name	Rate Name	Correlation: TMSB & HEDIS	P-value	N
Use of Services	Chemical Dependency Utilization-Inpatient Discharges and ALOS	CIPa - CD IP Tot F ALOS	0.11831	0.150705	149
Use of Services	Mental Health Utilization-Percentage of Members Receiving Services	MPTa - MH Svs Amb 65+ Tot Pct	0.113287	0.160464	155
Use of Services	Mental Health Utilization-Percentage of Members Receiving Services	MPTa - MH Svs Inpat 65+ Tot Pct	0.111201	0.165588	157
Use of Services	Mental Health Utilization-Percentage of Members Receiving Services	MPTa - MH Svs Inpat Tot F Pct	0.108845	0.174795	157
Use of Services	Mental Health Utilization-Percentage of Members Receiving Services	MPTa - MH Svs Amb Tot Pct	0.103767	0.198825	155
Use of Services	Chemical Dependency Utilization-Percentage of Members Receiving Services	CPTa - CD Svs Amb 65+ M Pct	0.103665	0.197805	156
Use of Services	Frequency of Selected Procedures	FSP - Total Knee Replacement M 75-84 Procs/1000	0.101803	0.191852	166
Use of Services	Chemical Dependency Utilization-Inpatient Discharges and ALOS	CIPa - CD IP 65+ F ALOS	0.098058	0.247355	141
Use of Services	Mental Health Utilization-Percentage of Members Receiving Services	MPTa - MH Svs Amb 65+ F Pct	0.097316	0.228349	155
Use of Services	Inpatient Utilization – General/Acute Care	IPUa - Surgery 85+ ALOS	0.096458	0.224988	160
Use of Services	Mental Health Utilization-Inpatient Discharges and ALOS	MIPa - MH Inpat 65+ Tot Ds/1000	0.095784	0.225327	162
Use of Services	Chemical Dependency Utilization-Percentage of Members Receiving Services	CPTa - CD Svs Amb Tot F Pct	0.095672	0.233289	157

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HEDIS Domain	Measure Name	Rate Name	Correlation: TMSB & HEDIS	P-value	N
Use of Services	Mental Health Utilization-Percentage of Members Receiving Services	MPTa - MH Svs Inpat Tot Pct	0.091516	0.254317	157
Use of Services	Frequency of Selected Procedures	FSP - Cholecystectomy cld (laparoscopic) M 85+ Procs/1000	0.089386	0.252108	166
Use of Services	Frequency of Selected Procedures	FSP - Total Hip Replacement F 75-84 Procs/1000	0.089176	0.253228	166
Use of Services	Mental Health Utilization-Percentage of Members Receiving Services	MPTa - MH Svs Inpat 65+ M Pct	0.08816	0.272224	157
Use of Services	Mental Health Utilization-Inpatient Discharges and ALOS	MIPa - MH Inpat 65+ F Ds/1000	0.087729	0.266957	162
Use of Services	Inpatient Utilization – General/Acute Care	IPUa - Tot IP ALOS 85+	0.087638	0.268958	161
Use of Services	Mental Health Utilization-Percentage of Members Receiving Services	MPTa - MH Svs Inpat Tot M Pct	0.084338	0.293638	157
Use of Services	Mental Health Utilization-Inpatient Discharges and ALOS	MIPa - MH Inpat 65+ M Ds/1000	0.07849	0.3208	162
Use of Services	Chemical Dependency Utilization-Percentage of Members Receiving Services	CPTa - CD Svs Any Tot F Pct	0.074698	0.352485	157
Use of Services	Frequency of Selected Procedures	FSP - Total Knee Replacement F 75-84 Procs/1000	0.071217	0.361875	166
Use of Services	Inpatient Utilization – General/Acute Care	IPUa - Surgery Tot ALOS	0.0706	0.373493	161
Use of Services	Inpatient Utilization – General/Acute Care	IPUa - Medicine 85+ ALOS	0.07052	0.374039	161
Use of Services	Mental Health Utilization-Percentage of Members Receiving Services	MPTa - MH Svs Amb Tot F Pct	0.069369	0.391067	155

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HEDIS Domain	Measure Name	Rate Name	Correlation: TMSB & HEDIS	P-value	N
Use of Services	Chemical Dependency Utilization-Percentage of Members Receiving Services	CPTa - CD Svs Amb Tot Pct	0.06917	0.389345	157
Use of Services	Chemical Dependency Utilization-Percentage of Members Receiving Services	CPTa - CD Svs Inpat 65+ M Pct	0.066703	0.405009	158
Use of Services	Inpatient Utilization – General/Acute Care	IPUa - Tot IP ALOS Tot	0.062868	0.4282	161
Use of Services	Chemical Dependency Utilization-Percentage of Members Receiving Services	CPTa - CD Svs Amb Tot M Pct	0.058112	0.471165	156
Use of Services	Inpatient Utilization – General/Acute Care	IPUa - Maternity 65+ ALOS	0.056467	0.771099	29
Use of Services	Chemical Dependency Utilization-Percentage of Members Receiving Services	CPTa - CD Svs Any Tot Pct	0.050785	0.527612	157
Use of Services	Mental Health Utilization-Inpatient Discharges and ALOS	MIPa - MH Inpat Tot M Ds/1000	0.049338	0.532964	162
Use of Services	Frequency of Selected Procedures	FSP - CABG F 85+ Procs/1000	0.049268	0.52846	166
Use of Services	Frequency of Selected Procedures	FSP - Total Knee Replacement F 85+ Procs/1000	0.048969	0.530967	166
Use of Services	Chemical Dependency Utilization-Percentage of Members Receiving Services	CPTa - CD Svs Any Tot M Pct	0.045741	0.569453	157
Use of Services	Mental Health Utilization-Inpatient Discharges and ALOS	MIPa - MH Inpat Tot F Ds/1000	0.044435	0.574481	162
Use of Services	Inpatient Utilization – General/Acute Care	IPUa - Surgery 75-84 ALOS	0.044134	0.578277	161

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HEDIS Domain	Measure Name	Rate Name	Correlation: TMSB & HEDIS	P-value	N
Use of Services	Inpatient Utilization – General/Acute Care	IPUa - Tot IP ALOS 75-84	0.043274	0.58571	161
Use of Services	Frequency of Selected Procedures	FSP - Total Hip Replacement F 85+ Procs/1000	0.040715	0.602487	166
Use of Services	Inpatient Utilization – General/Acute Care	IPUa - Tot IP ALOS 65-74	0.039881	0.615464	161
Use of Services	Inpatient Utilization – General/Acute Care	IPUa - Surgery 65-74 ALOS	0.03947	0.619114	161
Use of Services	Mental Health Utilization-Inpatient Discharges and ALOS	MIPa - MH Inpat Tot Ds/1000	0.039337	0.619189	162
Use of Services	Inpatient Utilization – General/Acute Care	IPUa - Medicine Tot ALOS	0.036163	0.6488	161
Use of Services	Inpatient Utilization – General/Acute Care	IPUa - Medicine 75-84 ALOS	0.029175	0.71333	161
Use of Services	Frequency of Selected Procedures	FSP - Hysterectomy - Vaginal 85+ Procs/1000	0.029034	0.710389	166
Use of Services	Frequency of Selected Procedures	FSP - Partial Excision of Large Intestine F 85+ Procs/1000	0.026102	0.738517	166
Use of Services	Inpatient Utilization – General/Acute Care	IPUa - Maternity Tot ALOS	0.024938	0.794093	112
Use of Services	Frequency of Selected Procedures	FSP - Hysterectomy - Vaginal 75-84 Procs/1000	0.022917	0.76947	166
Use of Services	Inpatient Utilization – General/Acute Care	IPUa - Medicine 65-74 ALOS	0.021777	0.783937	161
Use of Services	Frequency of Selected Procedures	FSP - Cholecystectomy cld (laparoscopic) M 75-84 Procs/1000	0.02015	0.796653	166
Use of Services	Frequency of Selected Procedures	FSP - Total Knee Replacement M 85+ Procs/1000	0.01891	0.808917	166
Use of Services	Inpatient Utilization- Non-Acute Care	NONa - Inpat Nonacute 65-74 ALOS	0.018771	0.814915	158
Use of Services	Ambulatory Care	AMBa - AMB Tot OP 85+ Visit/1000	0.018741	0.8089	169

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HEDIS Domain	Measure Name	Rate Name	Correlation: TMSB & HEDIS	P-value	N
Use of Services	Mental Health Utilization-Percentage of Members Receiving Services	MPTa - MH Svs Day/Night 65+ F Pct	0.016379	0.844441	146
Use of Services	Frequency of Selected Procedures	FSP - Angioplasty (PTCA) M 85+ Procs/1000	0.011361	0.884495	166
Use of Services	Inpatient Utilization – General/Acute Care	IPUa - Maternity 65+ Ds/1000	0.008597	0.91463	158
Use of Services	Chemical Dependency Utilization-Percentage of Members Receiving Services	CPTa - CD Svs Inpat 65+ Tot Pct	0.008291	0.917655	158
Use of Services	Chemical Dependency Utilization-Inpatient Discharges and ALOS	CIPa - CD IP 65+ M Ds/1000	0.007971	0.920061	161
Use of Services	Ambulatory Care	AMBa - AMB Tot OP 75-84 Visit/1000	0.007235	0.925621	169
Use of Services	Frequency of Selected Procedures	FSP - Hysterectomy - Abdominal 85+ Procs/1000	0.002203	0.977531	166
Use of Services	Inpatient Utilization- Non-Acute Care	NONa - Inpat Nonacute 85+ Ds/1000	0.001953	0.980567	158
Use of Services	Inpatient Utilization – General/Acute Care	IPUa - Maternity 65+ Days/1000 MM	-0.00019	0.998098	158
Use of Services	Inpatient Utilization- Non-Acute Care	NONa - Inpat Nonacute Tot Ds/1000	-0.00265	0.973623	158
Use of Services	Mental Health Utilization-Percentage of Members Receiving Services	MPTa - MH Svs Day/Night 65+ Tot Pct	-0.0066	0.937024	146
Use of Services	Frequency of Selected Procedures	FSP - Total Knee Replacement M <65 Procs/1000	-0.00798	0.919426	163
Use of Services	Ambulatory Care	AMBa - AMB Tot OP Tot Visit/1000	-0.00977	0.899643	169
Use of Services	Frequency of Selected Procedures	FSP - Carotid Endarterectomy F 85+ Procs/1000	-0.01	0.898233	166

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HEDIS Domain	Measure Name	Rate Name	Correlation: TMSB & HEDIS	P-value	N
Use of Services	Frequency of Selected Procedures	FSP - Total Hip Replacement M 75-84 Procs/1000	-0.01234	0.874607	166
Use of Services	Chemical Dependency Utilization-Percentage of Members Receiving Services	CPTa - CD Svs Inpat 65+ F Pct	-0.01248	0.876349	158
Use of Services	Chemical Dependency Utilization-Percentage of Members Receiving Services	CPTa - CD Svs Inpat Tot F Pct	-0.01383	0.863042	158
Use of Services	Inpatient Utilization- Non-Acute Care	NONa - Inpat Nonacute Tot ALOS	-0.01429	0.858572	158
Use of Services	Chemical Dependency Utilization-Percentage of Members Receiving Services	CPTa - CD Svs Inpat Tot Pct	-0.0159	0.842807	158
Use of Services	Inpatient Utilization – General/Acute Care	IPUa - Medicine 85+ Days/1000 MM	-0.01674	0.833112	161
Use of Services	Chemical Dependency Utilization-Percentage of Members Receiving Services	CPTa - CD Svs Day/Night 65+ F Pct	-0.01733	0.834956	147
Use of Services	Inpatient Utilization – General/Acute Care	IPUa - Surgery 85+ Days/1000 MM	-0.01813	0.819405	161
Use of Services	Chemical Dependency Utilization-Inpatient Discharges and ALOS	CIPa - CD IP Tot F Ds/1000	-0.01907	0.809685	162
Use of Services	Chemical Dependency Utilization-Inpatient Discharges and ALOS	CIPa - CD IP 65+ F Ds/1000	-0.02303	0.771797	161
Use of Services	Frequency of Selected Procedures	FSP - Carotid Endarterectomy M 85+ Procs/1000	-0.02422	0.7568	166
Use of Services	Frequency of Selected Procedures	FSP - Cholecystectomy opn F 85+ Procs/1000	-0.0264	0.735643	166

APPENDIX A
Correlation Analysis:
Correlation Between HOS MCS *Cohort I* MCS Scores and HEDIS Results

HEDIS Domain	Measure Name	Rate Name	Correlation: TMSB & HEDIS	P-value	N
Use of Services	Chemical Dependency Utilization-Percentage of Members Receiving Services	CPTa - CD Svs Inpat Tot M Pct	-0.02642	0.741798	158
Use of Services	Ambulatory Care	AMBa - AMB Tot OP 65-74 Visit/1000	-0.02722	0.72535	169
Use of Services	Inpatient Utilization- Non-Acute Care	NONa - Inpat Nonacute 75-84 Ds/1000	-0.02782	0.728643	158
Use of Services	Mental Health Utilization-Percentage of Members Receiving Services	MPTa - MH Svs Day/Night Tot F Pct	-0.02895	0.727741	147
Use of Services	Inpatient Utilization - General/Acute Care	IPUa - Tot IP Days/1000 MM 85+	-0.02976	0.70788	161
Use of Services	Outpatient Drug Utilization	ORXa - OP Rx 75-84 Avg Cst of Rx/Mem/Mnth	-0.03205	0.698016	149
Use of Services	Frequency of Selected Procedures	FSP - CABG M 85+ Procs/1000	-0.03211	0.681264	166
Use of Services	Chemical Dependency Utilization-Inpatient Discharges and ALOS	CIPa - CD IP 65+ Tot Ds/1000	-0.03502	0.659177	161
Use of Services	Frequency of Selected Procedures	FSP - Cholecystectomy opn M 85+ Procs/1000	-0.03582	0.646875	166
Use of Services	Frequency of Selected Procedures	FSP - Total Hip Replacement F 65-74 Procs/1000	-0.03982	0.610504	166
Use of Services	Inpatient Utilization - General/Acute Care	IPUa - Surgery 75-84 Days/1000 MM	-0.04042	0.61073	161
Use of Services	Chemical Dependency Utilization-Inpatient Discharges and ALOS	CIPa - CD IP Tot Ds/1000	-0.04045	0.609283	162
Use of Services	Inpatient Utilization- Non-Acute Care	NONa - Inpat Nonacute Tot Days/1000	-0.04047	0.613656	158
Use of Services	Chemical Dependency Utilization-Percentage of Members Receiving Services	CPTa - CD Svs Day/Night 65+ Tot Pct	-0.04132	0.619236	147

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Correlation Analysis:
Correlation Between HOS MCS *Cohort I* MCS Scores and HEDIS Results

HEDIS Domain	Measure Name	Rate Name	Correlation: TMSB & HEDIS	P-value	N
Use of Services	Inpatient Utilization- Non-Acute Care	NONa - Inpat Nonacute 65-74 Ds/1000	-0.04245	0.596368	158
Use of Services	Frequency of Selected Procedures	FSP - Total Hip Replacement M 65-74 Procs/1000	-0.04249	0.586787	166
Use of Services	Mental Health Utilization-Percentage of Members Receiving Services	MPTa - MH Svs Day/Night Tot Pct	-0.04259	0.6085	147
Use of Services	Inpatient Utilization - General/Acute Care	IPUa - Medicine 75-84 Days/1000 MM	-0.04307	0.587481	161
Use of Services	Outpatient Drug Utilization	ORXa - OP Rx 85+ Avg Cst of Rx/Mem/Mnth	-0.04337	0.599451	149
Use of Services	Inpatient Utilization- Non-Acute Care	NONa - Inpat Nonacute 85+ ALOS	-0.04396	0.588252	154
Use of Services	Chemical Dependency Utilization-Inpatient Discharges and ALOS	CIPa - CD IP Tot M Ds/1000	-0.04415	0.576974	162
Use of Services	Outpatient Drug Utilization	ORXa - OP Rx Tot Avg Cst of Rx/Mem/Mnth	-0.04426	0.592014	149
Use of Services	Inpatient Utilization - General/Acute Care	IPUa - Surgery Tot Days/1000 MM	-0.04601	0.562198	161
Use of Services	Inpatient Utilization- Non-Acute Care	NONa - Inpat Nonacute 75-84 ALOS	-0.0463	0.563444	158
Use of Services	Mental Health Utilization-Percentage of Members Receiving Services	MPTa - MH Svs Day/Night Tot M Pct	-0.04869	0.558127	147
Use of Services	Chemical Dependency Utilization-Percentage of Members Receiving Services	CPTa - CD Svs Day/Night Tot M Pct	-0.05106	0.537692	148
Use of Services	Inpatient Utilization - General/Acute Care	IPUa - Tot IP Days/1000 MM 75-84	-0.05142	0.517139	161
Use of Services	Outpatient Drug Utilization	ORXa - OP Rx 65-74 Avg Cst of Rx/Mem/Mnth	-0.05216	0.527511	149
Use of Services	Frequency of Selected Procedures	FSP - Partial Excision of Large Intestine F 75-84 Procs/1000	-0.05448	0.485737	166

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Correlation Analysis:
Correlation Between HOS MCS *Cohort I* MCS Scores and HEDIS Results

HEDIS Domain	Measure Name	Rate Name	Correlation: TMSB & HEDIS	P-value	N
Use of Services	Inpatient Utilization - General/Acute Care	IPUa - Medicine Tot Days/1000 MM	-0.05826	0.462899	161
Use of Services	Chemical Dependency Utilization-Percentage of Members Receiving Services	CPTa - CD Svs Day/Night 65+ M Pct	-0.0602	0.468871	147
Use of Services	Inpatient Utilization- Non-Acute Care	NONa - Inpat Nonacute 65-74 Days/1000	-0.06069	0.448727	158
Use of Services	Frequency of Selected Procedures	FSP - Hysterectomy - Abdominal 75-84 Procs/1000	-0.06269	0.422343	166
Use of Services	Ambulatory Care	AMBa - AMB Tot Observ Rm 85+ Ds Stays/1000	-0.06274	0.429158	161
Use of Services	Frequency of Selected Procedures	FSP - Cholecystectomy opn M 75-84 Procs/1000	-0.06291	0.420727	166
Use of Services	Inpatient Utilization- Non-Acute Care	NONa - Inpat Nonacute 85+ Days/1000	-0.06455	0.420342	158
Use of Services	Ambulatory Care	AMBa - AMB Tot ER 85+ Visit/1000	-0.06828	0.373441	172
Use of Services	Inpatient Utilization- Non-Acute Care	NONa - Inpat Nonacute 75-84 Days/1000	-0.06888	0.389792	158
Use of Services	Inpatient Utilization - General/Acute Care	IPUa - Surgery 65-74 Days/1000 MM	-0.07112	0.369991	161
Use of Services	Inpatient Utilization - General/Acute Care	IPUa - Tot IP Days/1000 MM Tot	-0.07415	0.349854	161
Use of Services	Ambulatory Care	AMBa - AMB Tot Observ Rm 75-84 Ds Stays/1000	-0.0745	0.346117	162
Use of Services	Outpatient Drug Utilization	ORXa - OP Rx 85+ Avg Num of Rx/	-0.07472	0.337188	167
Use of Services	Frequency of Selected Procedures	FSP - Reduction of Fracture Femur F 85+ Procs/1000	-0.07676	0.325604	166
Use of Services	Outpatient Drug Utilization	ORXa - OP Rx 85+ Tot Cst of Rx	-0.07719	0.338162	156
Use of Services	Ambulatory Care	AMBa - AMB Tot Observ Rm 65-74 Ds Stays/1000	-0.07744	0.327351	162

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Correlation Analysis:
Correlation Between HOS MCS *Cohort I* MCS Scores and HEDIS Results

HEDIS Domain	Measure Name	Rate Name	Correlation: TMSB & HEDIS	P-value	N
Use of Services	Frequency of Selected Procedures	FSP - Total Knee Replacement F 65-74 Procs/1000	-0.07745	0.321261	166
Use of Services	Ambulatory Care	AMBa - AMB Tot Observ Rm Tot Ds Stays/1000	-0.07752	0.325316	163
Use of Services	Inpatient Utilization - General/Acute Care	IPUa - Surgery 85+ Ds/1000	-0.07836	0.323119	161
Use of Services	Frequency of Selected Procedures	FSP - Prostatectomy 75-84 Procs/1000	-0.08163	0.295795	166
Use of Services	Ambulatory Care	AMBa - AMB Tot ER Tot Visit/1000	-0.08442	0.270901	172
Use of Services	Frequency of Selected Procedures	FSP - Carotid Endarterectomy M 75-84 Procs/1000	-0.08449	0.279126	166
Use of Services	Mental Health Utilization-Percentage of Members Receiving Services	MPTa - MH Svs Day/Night 65+ M Pct	-0.08499	0.307723	146
Use of Services	Ambulatory Care	AMBa - AMB Tot ER 75-84 Visit/1000	-0.08552	0.26465	172
Use of Services	Frequency of Selected Procedures	FSP - Partial Excision of Large Intestine M 75-84 Procs/1000	-0.08556	0.273049	166
Use of Services	Frequency of Selected Procedures	FSP - Partial Excision of Large Intestine M 65-74 Procs/1000	-0.08743	0.262698	166
Use of Services	Frequency of Selected Procedures	FSP - Reduction of Fracture Femur M 75-84 Procs/1000	-0.08859	0.256354	166
Use of Services	Frequency of Selected Procedures	FSP - Partial Excision of Large Intestine M 85+ Procs/1000	-0.08865	0.256025	166
Use of Services	Inpatient Utilization - General/Acute Care	IPUa - Surgery 75-84 Ds/1000	-0.09014	0.255476	161
Use of Services	Frequency of Selected Procedures	FSP - Total Knee Replacement M 65-74 Procs/1000	-0.09148	0.241109	166
Use of Services	Inpatient Utilization - General/Acute Care	IPUa - Medicine 65-74 Days/1000 MM	-0.09173	0.247167	161

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Correlation Analysis:
Correlation Between HOS MCS *Cohort I* MCS Scores and HEDIS Results

HEDIS Domain	Measure Name	Rate Name	Correlation: TMSB & HEDIS	P-value	N
Use of Services	Frequency of Selected Procedures	FSP - Hysterectomy - Abdominal 65-74 Procs/1000	-0.09248	0.235985	166
Use of Services	Outpatient Drug Utilization	ORXa - OP Rx Tot Avg Num of Rx/	-0.09654	0.214567	167
Use of Services	Chemical Dependency Utilization-Percentage of Members Receiving Services	CPTa - CD Svs Day/Night Tot Pct	-0.09672	0.240648	149
Use of Services	Chemical Dependency Utilization-Percentage of Members Receiving Services	CPTa - CD Svs Day/Night Tot F Pct	-0.09733	0.237655	149
Use of Services	Outpatient Drug Utilization	ORXa - OP Rx 75-84 Tot Cst of Rx	-0.09783	0.224366	156
Use of Services	Frequency of Selected Procedures	FSP - Hysterectomy - Vaginal 65-74 Procs/1000	-0.09855	0.206508	166
Use of Services	Frequency of Selected Procedures	FSP - Cholecystectomy cld (laparoscopic) M 65-74 Procs/1000	-0.09883	0.20523	166
Use of Services	Frequency of Selected Procedures	FSP - Cholecystectomy cld (laparoscopic) F 85+ Procs/1000	-0.09942	0.202523	166
Use of Services	Frequency of Selected Procedures	FSP - Angioplasty (PTCA) M 75-84 Procs/1000	-0.10018	0.199091	166
Use of Services	Outpatient Drug Utilization	ORXa - OP Rx 75-84 Avg Num of Rx/	-0.10039	0.19676	167
Use of Services	Outpatient Drug Utilization	ORXa - OP Rx Tot Tot Cst of Rx	-0.10461	0.193703	156
Use of Services	Inpatient Utilization - General/Acute Care	IPUa - Medicine 75-84 Ds/1000	-0.10597	0.180942	161
Use of Services	Outpatient Drug Utilization	ORXa - OP Rx 65-74 Tot Cst of Rx	-0.11161	0.165398	156
Use of Services	Ambulatory Care	AMBa - AMB Tot Amb 75-84 Surg/Procs Procs/1000	-0.11222	0.143933	171
Use of Services	Inpatient Utilization - General/Acute Care	IPUa - Tot IP Days/1000 MM 65-74	-0.11275	0.154446	161

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Correlation Analysis:
Correlation Between HOS MCS *Cohort I* MCS Scores and HEDIS Results

HEDIS Domain	Measure Name	Rate Name	Correlation: TMSB & HEDIS	P-value	N
Use of Services	Outpatient Drug Utilization	ORXa - OP Rx 65-74 Avg Num of Rx/	-0.11295	0.146122	167
Use of Services	Frequency of Selected Procedures	FSP - Prostatectomy 65-74 Procs/1000	-0.11352	0.145318	166
Use of Services	Inpatient Utilization - General/Acute Care	IPUa - Medicine 85+ Ds/1000	-0.11523	0.145517	161
Use of Services	Inpatient Utilization - General/Acute Care	IPUa - Surgery Tot Ds/1000	-0.11569	0.143915	161
Use of Services	Frequency of Selected Procedures	FSP - Angioplasty (PTCA) F 75-84 Procs/1000	-0.11749	0.131681	166
Use of Services	Frequency of Selected Procedures	FSP - Reduction of Fracture Femur F 75-84 Procs/1000	-0.12185	0.117849	166
Use of Services	Frequency of Selected Procedures	FSP - Angioplasty (PTCA) F 85+ Procs/1000	-0.12535	0.107566	166
Use of Services	Ambulatory Care	AMBa - AMB Tot ER 65-74 Visit/1000	-0.12579	0.100128	172
Use of Services	Inpatient Utilization - General/Acute Care	IPUa - Surgery 65-74 Ds/1000	-0.13027	0.099538	161
Use of Services	Inpatient Utilization - General/Acute Care	IPUa - Medicine Tot Ds/1000	-0.13087	0.09798	161
Use of Services	Frequency of Selected Procedures	FSP - CABG M 65-74 Procs/1000	-0.13211	0.089765	166
Use of Services	Inpatient Utilization - General/Acute Care	IPUa - Maternity Tot Days/1000 MM	-0.13438	0.092311	158
Use of Services	Frequency of Selected Procedures	FSP - Prostatectomy 85+ Procs/1000	-0.13693	0.078557	166
Use of Services	Inpatient Utilization - General/Acute Care	IPUa - Maternity Tot Ds/1000	-0.1377	0.084461	158
Use of Services	Inpatient Utilization - General/Acute Care	IPUa - Tot IP Ds/1000 MM 75-84	-0.13986	0.076808	161
Use of Services	Ambulatory Care	AMBa - AMB Tot Amb Tot Surg/Procs Procs/1000	-0.14037	0.066258	172
Use of Services	Inpatient Utilization - General/Acute Care	IPUa - Tot IP Ds/1000 MM 85+	-0.14233	0.071695	161

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Correlation Analysis:
Correlation Between HOS MCS *Cohort I* MCS Scores and HEDIS Results

HEDIS Domain	Measure Name	Rate Name	Correlation: TMSB & HEDIS	P-value	N
Use of Services	Ambulatory Care	AMBa - AMB Tot Amb 85+ Surg/Procs Procs/1000	-0.14563	0.057361	171
Use of Services	Frequency of Selected Procedures	FSP - Cholecystectomy cld (laparoscopic) F 65-74 Procs/1000	-0.1475	0.057906	166
Use of Services	Ambulatory Care	AMBa - AMB Tot Amb 65-74 Surg/Procs Procs/1000	-0.14846	0.052645	171
Use of Services	Frequency of Selected Procedures	FSP - Carotid Endarterectomy M 65-74 Procs/1000	-0.15002	0.053702	166
Use of Services	Frequency of Selected Procedures	FSP - Angioplasty (PTCA)F 65-74 Procs/1000	-0.16057	0.03877	166
Use of Services	Frequency of Selected Procedures	FSP - Reduction of Fracture Femur M 85+ Procs/1000	-0.164	0.034745	166
Use of Services	Inpatient Utilization - General/Acute Care	IPUa - Medicine 65-74 Ds/1000	-0.16447	0.037087	161
Use of Services	Frequency of Selected Procedures	FSP - Cardiac Catheterization F 85+ Procs/1000	-0.16755	0.030955	166
Use of Services	Inpatient Utilization - General/Acute Care	IPUa - Tot IP Ds/1000 MM Tot	-0.17012	0.030963	161
Use of Services	Frequency of Selected Procedures	FSP - Cardiac Catheterization M 85+ Procs/1000	-0.1703	0.028262	166
Use of Services	Frequency of Selected Procedures	FSP - Cholecystectomy opn F 75-84 Procs/1000	-0.17058	0.027997	166
Use of Services	Frequency of Selected Procedures	FSP - Reduction of Fracture Femur F 65-74 Procs/1000	-0.17083	0.027765	166
Use of Services	Frequency of Selected Procedures	FSP - CABG M 75-84 Procs/1000	-0.17573	0.023535	166
Use of Services	Frequency of Selected Procedures	FSP - Partial Excision of Large Intestine F 65-74 Procs/1000	-0.18584	0.016521	166

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Correlation Analysis:
Correlation Between HOS MCS *Cohort I* MCS Scores and HEDIS Results

HEDIS Domain	Measure Name	Rate Name	Correlation: TMSB & HEDIS	P-value	N
Use of Services	Frequency of Selected Procedures	FSP - Carotid Endarterectomy F 75-84 Procs/1000	-0.1884	0.015065	166
Use of Services	Frequency of Selected Procedures	FSP - Cardiac Catheterization M 65-74 Procs/1000	-0.19098	0.01371	166
Use of Services	Frequency of Selected Procedures	FSP - Cholecystectomy opn M 65-74 Procs/1000	-0.19564	0.011535	166
Use of Services	Frequency of Selected Procedures	FSP - Cardiac Catheterization M 75-84 Procs/1000	-0.19738	0.010803	166
Use of Services	Frequency of Selected Procedures	FSP - CABG F 65-74 Procs/1000	-0.19861	0.010313	166
Use of Services	Inpatient Utilization - General/Acute Care	IPUa - Tot IP Ds/1000 MM 65-74	-0.19942	0.011205	161
Use of Services	Frequency of Selected Procedures	FSP - Angioplasty (PTCA)M 65-74 Procs/1000	-0.2	0.00978	166
Use of Services	Frequency of Selected Procedures	FSP - Cardiac Catheterization F 75-84 Procs/1000	-0.21378	0.005681	166
Use of Services	Frequency of Selected Procedures	FSP - Cholecystectomy opn F 65-74 Procs/1000	-0.21984	0.004427	166
Use of Services	Frequency of Selected Procedures	FSP - Reduction of Fracture Femur M 65-74 Procs/1000	-0.22197	0.00405	166
Use of Services	Frequency of Selected Procedures	FSP - Carotid Endarterectomy F 65-74 Procs/1000	-0.22753	0.003196	166
Use of Services	Frequency of Selected Procedures	FSP - Cardiac Catheterization F 65-74 Procs/1000	-0.23419	0.002391	166
Use of Services	Frequency of Selected Procedures	FSP - Cholecystectomy cld (laparoscopic) F 75-84 Procs/1000	-0.24726	0.00132	166
Use of Services	Frequency of Selected Procedures	FSP - CABG F 75-84 Procs/1000	-0.26615	0.000528	166

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Correlation Analysis:
Correlation Between HOS Cohort I MCS Scores and CAHPS® Results

HEDIS Domain	Measure Name	Correlation: TMSB & CAHPS	P-value	N
Effectiveness of Care	Pneumonia Vaccination Status for Older Adults	0.21031	0.035711	100
Effectiveness of Care	Flu Shots for Older Adults	0.085179	0.399446	100
Effectiveness of Care	Advising Smokers to Quit	0.042331	0.687034	93
Satisfaction with the Experience of Care	Getting Care Quickly	0.380126	<.0001	100
Satisfaction with the Experience of Care	Courteous and Helpful Office Staff	0.2415	0.015496	100
Satisfaction with the Experience of Care	How Well Doctors Communicate	0.221446	0.026816	100
Satisfaction with the Experience of Care	Getting Needed Care	0.183234	0.068033	100
Satisfaction with the Experience of Care	Customer Service	0.13895	0.167979	100
Satisfaction with the Experience of Care	Rating of All Health Care	0.059179	0.558643	100
Satisfaction with the Experience of Care	Rating of Personal Doctor	0.057282	0.571338	100
Satisfaction with the Experience of Care	Rating of Health Plan	0.024783	0.806652	100
Satisfaction with the Experience of Care	Rating of Specialist Seen Most Often	-0.1007	0.318813	100

APPENDIX A

Analysis of Differences in HEDIS Results between Outlier Groups

HEDIS Domain	Measure Name	Rate Name	Hi N	Hi Mean	Lo N	Lo Mean	Mean Ratio	Wilcoxon (Hi-Lo) P-value	Kruskal-Wallis (Hi-Avg-Lo) P-value
Access/ Availability of Care	Adults' Access to Preventive/Ambulatory Health Services	AAP - Rate 65+	13	89.48	14	88.15	1.02	0.3693	0.4780
Effectiveness of Care	Cholesterol Management After Acute Events	CHM - Rate - LDL-C lvl <130mg/dL 60-365	8	48.40	12	32.78	1.48	0.0228	0.0239
Effectiveness of Care	Comprehensive Diabetes Care	CDC - Rate - Eye Exams	13	69.55	15	49.23	1.41	0.0027	0.0035
Effectiveness of Care	Comprehensive Diabetes Care	CDC - Rate - Monitoring Diabetic Nephropathy	13	44.31	14	37.95	1.17	0.3823	0.7289
Effectiveness of Care	Beta-Blocker Treatment After a Heart Attack	BBH - Rate	7	92.60	13	80.33	1.15	0.0215	0.0251
Effectiveness of Care	Cholesterol Management After Acute Events	CHM - Rate - LDL-C Screening 60-365	8	69.41	13	60.95	1.14	0.0888	0.1665
Effectiveness of Care	Comprehensive Diabetes Care	CDC - Rate - HbA1c Testing	13	82.07	15	74.09	1.11	0.0761	0.2534
Effectiveness of Care	Breast Cancer Screening	BCS - Rate	13	74.11	15	69.11	1.07	0.0530	0.1305
Effectiveness of Care	Controlling High Blood Pressure	CBP - Rate	13	37.35	12	35.22	1.06	0.4628	0.4605
Effectiveness of Care	Comprehensive Diabetes Care	CDC - Rate - Lipid Profile	13	75.35	14	72.28	1.04	0.5124	0.7946
Effectiveness of Care	Comprehensive Diabetes Care	CDC - Rate - Lipid Control	13	44.71	13	44.11	1.01	0.9591	0.7358
Effectiveness of Care	Comprehensive Diabetes Care	CDC - Rate - Poor HbA1c Control	13	30.45	13	43.77	0.70	0.1239	0.1757

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Analysis of Differences in HEDIS Results between Outlier Groups

HEDIS Domain	Measure Name	Rate Name	Hi N	Hi Mean	Lo N	Lo Mean	Mean Ratio	Wilcoxon (Hi-Lo) P-value	Kruskal-Wallis (Hi-Avg-Lo) P-value
Health Plan Descriptive Information	Total Enrollment by Percentage	ENT - Tot Enr Pct Tot Other	12	2.24	12	0.001135	1973.59	1.0000	0.1067
Health Plan Descriptive Information	Enrollment by Payer	ENPa - Enr by Product Line Tot F	13	11948.41	15	9598.04	1.24	0.8178	0.1756
Health Plan Descriptive Information	Enrollment by Payer	ENPa - Enr by Product Line Tot Tot	13	20450.09	15	17285.56	1.18	0.8901	0.1905
Health Plan Descriptive Information	Board Certification/Residency Completion	BCR - Geriatricians Board Cert Pct	11	77.82	12	67.87	1.15	0.6827	0.7473
Health Plan Descriptive Information	Enrollment by Payer	ENPa - Enr by Product Line Tot M	13	8502.84	15	7690.59	1.11	0.9633	0.2037
Health Plan Descriptive Information	Total Enrollment by Percentage	ENT - Tot Enr Pct Tot Commercial	13	64.20	14	61.20	1.05	0.6618	0.3312
Health Plan Descriptive Information	Board Certification/Residency Completion	BCR - Geriatricians Resi Completion Pct	11	92.33	12	88.40	1.04	0.8338	0.8371
Health Plan Descriptive Information	Board Certification/Residency Completion	BCR - PCP Board Cert Pct	12	79.97	13	77.71	1.03	0.4303	0.4945
Health Plan Descriptive Information	Board Certification/Residency Completion	BCR - Oth Specialists Resi Completion Pct	12	96.07	13	93.47	1.03	0.8487	0.9381

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Analysis of Differences in HEDIS Results between Outlier Groups

HEDIS Domain	Measure Name	Rate Name	Hi N	Hi Mean	Lo N	Lo Mean	Mean Ratio	Wilcoxon (Hi-Lo) P-value	Kruskal-Wallis (Hi-Avg-Lo) P-value
Health Plan Descriptive Information	Board Certification/Residency Completion	BCR - Oth Specialists Board Cert Pct	12	80.84	13	80.02	1.01	0.8918	0.4371
Health Plan Descriptive Information	Board Certification/Residency Completion	BCR - PCP Resi Completion Pct	12	93.13	13	93.88	0.99	0.6831	0.8014
Health Plan Descriptive Information	Total Enrollment by Percentage	ENT - Tot Enr Pct Tot Medicare	13	16.93	14	34.70	0.49	0.0522	0.0230
Health Plan Descriptive Information	Total Enrollment by Percentage	ENT - Tot Enr Pct Tot Medicaid	12	1.54	12	4.78	0.32	0.1535	0.2939
Health Plan Stability	Years in Business/Total Membership	YIB - Membership HMO-Tot	13	278859.23	15	93131.44	2.99	0.5493	0.0548
Health Plan Stability	Years in Business/Total Membership	YIB - Tot Membership Tot	13	316408.54	15	117610.71	2.69	0.3814	0.0215
Health Plan Stability	Years in Business/Total Membership	YIB - Years in Bus. POS-Tot	10	6.37	12	3.37	1.89	0.0478	0.1431
Health Plan Stability	Years in Business/Total Membership	YIB - Membership POS-Tot	10	48411.00	12	29323.67	1.65	0.0758	0.1275
Health Plan Stability	Years in Business/Total Membership	YIB - Years in Bus. HMO-Tot	13	16.54	15	10.07	1.64	0.0136	0.0143
Health Plan Stability	Total Disenrollment	DIS - Disenrollment Rate	7	14.29	8	21.32	0.67	0.1480	0.3878

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Analysis of Differences in HEDIS Results between Outlier Groups

HEDIS Domain	Measure Name	Rate Name	Hi N	Hi Mean	Lo N	Lo Mean	Mean Ratio	Wilcoxon (Hi-Lo) P-value	Kruskal-Wallis (Hi-Avg-Lo) P-value
Health Plan Stability	Practitioner Turnover	PTU Prov PCP Turnover Rate	12	12.17	13	22.08	0.55	0.0771	0.0999
Health Plan Stability	Years in Business/Total Membership	YIB - Years in Bus. PPO-Tot	8	0.38	11	0.80	0.47	0.6966	0.5268
Health Plan Stability	Years in Business/Total Membership	YIB - Membership PPO-Tot	8	503.88	11	1391.36	0.36	0.6966	0.6122
Use of Services	Mental Health Utilization-Percentage of Members Receiving Services	MPTa - MH Svs Day/Night 65+ F Pct	10	0.11	12	0.01	11.16	0.5169	0.3071
Use of Services	Mental Health Utilization-Percentage of Members Receiving Services	MPTa - MH Svs Day/Night 65+ Tot Pct	10	0.10	12	0.01	9.73	0.6142	0.2494
Use of Services	Mental Health Utilization-Percentage of Members Receiving Services	MPTa - MH Svs Day/Night 65+ M Pct	10	0.08	12	0.01	7.82	0.5923	0.3175
Use of Services	Mental Health Utilization-Percentage of Members Receiving Services	MPTa - MH Svs Day/Night Tot F Pct	10	0.12	12	0.03	3.99	0.8899	0.4740
Use of Services	Mental Health Utilization-Percentage of Members Receiving Services	MPTa - MH Svs Day/Night Tot Pct	10	0.11	12	0.03	3.77	0.7292	0.4783

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HEDIS Domain	Measure Name	Rate Name	Hi N	Hi Mean	Lo N	Lo Mean	Mean Ratio	Wilcoxon (Hi-Lo) P-value	Kruskal-Wallis (Hi-Avg-Lo) P-value
Use of Services	Mental Health Utilization-Percentage of Members Receiving Services	MPTa - MH Svs Day/Night Tot M Pct	10	0.09	12	0.03	3.50	0.6921	0.5381
Use of Services	Frequency of Selected Procedures	FSP - Total Hip Replacement M 85+ Procs/1000	10	4.01	15	1.17	3.41	0.0396	0.0680
Use of Services	Frequency of Selected Procedures	FSP - Cholecystectomy opn M 85+ Procs/1000	10	4.22	15	1.98	2.13	0.1582	0.2558
Use of Services	Frequency of Selected Procedures	FSP - Hysterectomy - Abdominal 85+ Procs/1000	10	1.33	15	0.68	1.96	0.8811	0.7108
Use of Services	Frequency of Selected Procedures	FSP - CABG M 85+ Procs/1000	10	5.45	15	2.90	1.88	0.8861	0.7661
Use of Services	Frequency of Selected Procedures	FSP - Carotid Endarterectomy F 85+ Procs/1000	10	2.89	15	1.63	1.77	0.2742	0.1770
Use of Services	Chemical Dependency Utilization-Inpatient Discharges and ALOS	CIPa - CD IP Tot M ALOS	9	7.80	13	4.59	1.70	0.0825	0.0450

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HEDIS Domain	Measure Name	Rate Name	Hi N	Hi Mean	Lo N	Lo Mean	Mean Ratio	Wilcoxon (Hi-Lo) P-value	Kruskal-Wallis (Hi-Avg-Lo) P-value
Use of Services	Mental Health Utilization-Inpatient Discharges and ALOS	MIPa - MH Inpat 65+ M ALOS	10	10.40	13	6.18	1.68	0.1002	0.1753
Use of Services	Frequency of Selected Procedures	FSP - Cholecystectomy opn F 85+ Procs/1000	10	2.60	15	1.59	1.64	0.4136	0.5075
Use of Services	Frequency of Selected Procedures	FSP - CABG F 85+ Procs/1000	10	2.49	15	1.52	1.63	0.4223	0.5720
Use of Services	Mental Health Utilization-Inpatient Discharges and ALOS	MIPa - MH Inpat Tot M ALOS	10	9.45	13	6.09	1.55	0.1138	0.2227
Use of Services	Chemical Dependency Utilization-Inpatient Discharges and ALOS	CIPa - CD IP 65+ M ALOS	8	6.53	12	4.33	1.51	0.3748	0.4304
Use of Services	Mental Health Utilization-Inpatient Discharges and ALOS	MIPa - MH Inpat 65+ Tot ALOS	10	8.92	13	6.45	1.38	0.1824	0.3054
Use of Services	Mental Health Utilization-Percentage of Members Receiving Services	MPTa - MH Svs Any 65+ F Pct	10	2.10	13	1.51	1.38	0.2265	0.0260
Use of Services	Mental Health Utilization-Percentage of Members Receiving Services	MPTa - MH Svs Any 65+ Tot Pct	10	1.85	13	1.34	1.38	0.2778	0.0321

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HEDIS Domain	Measure Name	Rate Name	Hi N	Hi Mean	Lo N	Lo Mean	Mean Ratio	Wilcoxon (Hi-Lo) P-value	Kruskal-Wallis (Hi-Avg-Lo) P-value
Use of Services	Mental Health Utilization-Percentage of Members Receiving Services	MPTa - MH Svs Any 65+ M Pct	10	1.51	13	1.10	1.37	0.2778	0.0663
Use of Services	Mental Health Utilization-Percentage of Members Receiving Services	MPTa - MH Svs Amb 65+ M Pct	11	1.12	12	0.82	1.36	0.2549	0.0437
Use of Services	Chemical Dependency Utilization-Inpatient Discharges and ALOS	CIPa - CD IP 65+ F ALOS	8	5.92	13	4.37	1.35	0.0952	0.1759
Use of Services	Chemical Dependency Utilization-Inpatient Discharges and ALOS	CIPa - CD IP Tot ALOS	10	6.02	13	4.46	1.35	0.0170	0.0268
Use of Services	Chemical Dependency Utilization-Inpatient Discharges and ALOS	CIPa - CD IP 65+ Tot ALOS	9	5.71	13	4.25	1.35	0.0767	0.2411
Use of Services	Frequency of Selected Procedures	FSP - Total Hip Replacement F 75-84 Procs/1000	10	4.75	15	3.51	1.35	0.1139	0.2362
Use of Services	Frequency of Selected Procedures	FSP - Angioplasty (PTCA) M 85+ Procs/1000	10	8.00	15	5.96	1.34	0.3148	0.4258

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HEDIS Domain	Measure Name	Rate Name	Hi N	Hi Mean	Lo N	Lo Mean	Mean Ratio	Wilcoxon (Hi-Lo) P-value	Kruskal-Wallis (Hi-Avg-Lo) P-value
Use of Services	Frequency of Selected Procedures	FSP - Total Knee Replacement M 85+ Procs/1000	10	3.70	15	2.77	1.34	0.9321	0.5607
Use of Services	Mental Health Utilization-Inpatient Discharges and ALOS	MIPa - MH Inpat Tot ALOS	10	8.79	13	6.71	1.31	0.3062	0.5194
Use of Services	Mental Health Utilization-Inpatient Discharges and ALOS	MIPa - MH Inpat 65+ F ALOS	10	8.23	13	6.56	1.26	0.4025	0.5077
Use of Services	Frequency of Selected Procedures	FSP - Angioplasty (PTCA) M 75-84 Procs/1000	10	13.05	15	10.41	1.25	0.6774	0.4505
Use of Services	Mental Health Utilization-Percentage of Members Receiving Services	MPTa - MH Svs Amb 65+ Tot Pct	11	1.43	12	1.15	1.25	0.3722	0.0576
Use of Services	Mental Health Utilization-Percentage of Members Receiving Services	MPTa - MH Svs Any Tot M Pct	10	0.02	13	0.02	1.24	0.5558	0.1431
Use of Services	Frequency of Selected Procedures	FSP - Total Knee Replacement F 85+ Procs/1000	10	4.78	15	3.88	1.23	0.8027	0.1096

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HEDIS Domain	Measure Name	Rate Name	Hi N	Hi Mean	Lo N	Lo Mean	Mean Ratio	Wilcoxon (Hi-Lo) P-value	Kruskal-Wallis (Hi-Avg-Lo) P-value
Use of Services	Frequency of Selected Procedures	FSP - Hysterectomy - Vaginal 75-84 Procs/1000	10	1.88	15	1.53	1.23	0.4536	0.0306
Use of Services	Inpatient Utilization-Non-Acute Care	NONa - Inpat Nonacute 65-74 ALOS	10	15.33	14	12.49	1.23	0.4642	0.6203
Use of Services	Mental Health Utilization-Percentage of Members Receiving Services	MPTa - MH Svs Any Tot Pct	10	0.02	13	0.02	1.22	0.4757	0.0760
Use of Services	Mental Health Utilization-Percentage of Members Receiving Services	MPTa - MH Svs Any Tot F Pct	10	2.69	13	2.22	1.21	0.4382	0.0436
Use of Services	Mental Health Utilization-Percentage of Members Receiving Services	MPTa - MH Svs Amb Tot M Pct	11	1.78	12	1.48	1.20	0.5588	0.1237
Use of Services	Mental Health Utilization-Percentage of Members Receiving Services	MPTa - MH Svs Amb 65+ F Pct	11	1.66	12	1.38	1.20	0.3722	0.0644
Use of Services	Mental Health Utilization-Percentage of Members Receiving Services	MPTa - MH Svs Inpat 65+ F Pct	10	0.48	13	0.41	1.19	0.7330	0.4991

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HEDIS Domain	Measure Name	Rate Name	Hi N	Hi Mean	Lo N	Lo Mean	Mean Ratio	Wilcoxon (Hi-Lo) P-value	Kruskal-Wallis (Hi-Avg-Lo) P-value
Use of Services	Chemical Dependency Utilization-Inpatient Discharges and ALOS	CIPa - CD IP Tot F ALOS	9	5.60	13	4.74	1.18	0.2166	0.3304
Use of Services	Frequency of Selected Procedures	FSP - Partial Excision of Large Intestine F 85+ Procs/1000	10	5.47	15	4.62	1.18	0.8021	0.4937
Use of Services	Frequency of Selected Procedures	FSP - Total Knee Replacement F 75-84 Procs/1000	10	7.85	15	6.66	1.18	0.3317	0.4350
Use of Services	Frequency of Selected Procedures	FSP - Total Hip Replacement F 85+ Procs/1000	10	3.16	15	2.72	1.16	0.4522	0.6511
Use of Services	Inpatient Utilization-General Hospital/Acute Care	IPUa - Surgery 65-74 ALOS	10	6.73	15	5.81	1.16	0.4540	0.6893
Use of Services	Mental Health Utilization-Inpatient Discharges and ALOS	MIPa - MH Inpat Tot F ALOS	10	8.27	13	7.12	1.16	0.7330	0.9121
Use of Services	Chemical Dependency Utilization-Percentage of Members Receiving Services	CPTa - CD Svs Inpat 65+ M Pct	10	0.09	13	0.08	1.15	1.0000	0.9043

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Use of Services	Mental Health Utilization-Percentage of Members Receiving Services	MPTa - MH Svs Inpat 65+ Tot Pct	10	0.44	13	0.38	1.15	0.7802	0.6579
Use of Services	Frequency of Selected Procedures	FSP - Total Hip Replacement M 75-84 Procs/1000	10	3.69	15	3.24	1.14	0.7811	0.8318
Use of Services	Frequency of Selected Procedures	FSP - Cholecystectomy cld (laparoscopic) M 85+ Procs/1000	10	5.52	15	4.88	1.13	0.8215	0.7691
Use of Services	Inpatient Utilization-General Hospital/Acute Care	IPUa - Surgery 85+ ALOS	10	7.47	15	6.61	1.13	0.3601	0.6063
Use of Services	Outpatient Drug Utilization	ORXa - OP Rx 75-84 Avg Num of Rx/	11	31.30	14	27.64	1.13	0.6814	0.5116
Use of Services	Outpatient Drug Utilization	ORXa - OP Rx 85+ Avg Num of Rx/	11	31.85	14	28.13	1.13	0.4938	0.4435
Use of Services	Frequency of Selected Procedures	FSP - Cholecystectomy opn M 75-84 Procs/1000	10	3.85	15	3.44	1.12	0.8896	0.2612
Use of Services	Inpatient Utilization-General Hospital/Acute Care	IPUa - Surgery Tot ALOS	10	6.89	15	6.17	1.12	0.4881	0.7068

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Use of Services	Inpatient Utilization-Non-Acute Care	NONa - Inpat Nonacute Tot ALOS	10	14.35	14	12.83	1.12	0.9300	0.8532
Use of Services	Frequency of Selected Procedures	FSP - Total Hip Replacement M 65-74 Procs/1000	10	2.59	15	2.33	1.11	0.7182	0.7696
Use of Services	Mental Health Utilization-Percentage of Members Receiving Services	MPTa - MH Svs Amb Tot Pct	11	2.05	12	1.84	1.11	0.8294	0.0949
Use of Services	Outpatient Drug Utilization	ORXa - OP Rx Tot Avg Num of Rx/	11	29.03	14	26.18	1.11	0.7220	0.5553
Use of Services	Outpatient Drug Utilization	ORXa - OP Rx 65-74 Avg Num of Rx/	11	26.89	14	24.30	1.11	0.6417	0.6661
Use of Services	Frequency of Selected Procedures	FSP - Cholecystectomy opn F 75-84 Procs/1000	10	2.47	15	2.25	1.10	0.7601	0.1901
Use of Services	Frequency of Selected Procedures	FSP - Reduction of Fracture Femur F 85+ Procs/1000	10	30.42	15	27.92	1.09	0.8029	0.7519
Use of Services	Mental Health Utilization-Percentage of Members Receiving Services	MPTa - MH Svs Inpat 65+ M Pct	10	0.38	13	0.35	1.09	0.9753	0.8766

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HEDIS Domain	Measure Name	Rate Name	Hi N	Hi Mean	Lo N	Lo Mean	Mean Ratio	Wilcoxon (Hi-Lo) P-value	Kruskal-Wallis (Hi-Avg-Lo) P-value
Use of Services	Inpatient Utilization-General Hospital/Acute Care	IPUa - Tot IP ALOS 65-74	10	5.52	15	5.12	1.08	0.6373	0.7440
Use of Services	Inpatient Utilization-General Hospital/Acute Care	IPUa - Surgery 85+ Days/1000 MM	10	644.16	15	597.49	1.08	0.7603	0.9071
Use of Services	Frequency of Selected Procedures	FSP - Angioplasty (PTCA) F 75-84 Procs/1000	10	6.99	15	6.59	1.06	0.9337	0.9851
Use of Services	Mental Health Utilization-Percentage of Members Receiving Services	MPTa - MH Svs Amb Tot F Pct	11	2.24	12	2.12	1.06	0.7818	0.0819
Use of Services	Inpatient Utilization-General Hospital/Acute Care	IPUa - Tot IP ALOS Tot	10	5.56	15	5.31	1.05	0.7603	0.7949
Use of Services	Mental Health Utilization-Inpatient Discharges and ALOS	MIPa - MH Inpat 65+ F Ds/1000	10	5.46	13	5.20	1.05	0.6869	0.3858
Use of Services	Frequency of Selected Procedures	FSP - Total Knee Replacement F 65-74 Procs/1000	10	7.32	15	7.04	1.04	0.9337	0.0409
Use of Services	Inpatient Utilization-General Hospital/Acute Care	IPUa - Tot IP ALOS 85+	10	5.74	15	5.51	1.04	0.5982	0.6577

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Use of Services	Inpatient Utilization-General Hospital/Acute Care	IPUa - Surgery 65-74 Days/1000 MM	10	479.03	15	459.96	1.04	1.0000	0.5167
Use of Services	Ambulatory Care	AMBa - AMB Tot OP 85+ Visit/1000	13	6746.37	14	6532.03	1.03	0.6800	0.7316
Use of Services	Ambulatory Care	AMBa - AMB Tot OP 75-84 Visit/1000	13	6967.52	14	6785.32	1.03	0.7896	0.7715
Use of Services	Inpatient Utilization-General Hospital/Acute Care	IPUa - Surgery 75-84 ALOS	10	6.84	15	6.65	1.03	0.8461	0.9274
Use of Services	Inpatient Utilization-Non-Acute Care	NONa - Inpat Nonacute 85+ ALOS	9	13.53	14	13.09	1.03	0.6822	0.6896
Use of Services	Inpatient Utilization-General Hospital/Acute Care	IPUa - Surgery Tot Days/1000 MM	10	533.65	15	523.66	1.02	0.9779	0.5999
Use of Services	Mental Health Utilization-Inpatient Discharges and ALOS	MIPa - MH Inpat 65+ Tot Ds/1000	10	5.07	13	4.97	1.02	0.6869	0.4676
Use of Services	Frequency of Selected Procedures	FSP - Reduction of Fracture Femur F 75-84 Procs/1000	10	10.03	15	9.98	1.01	0.5603	0.5436
Use of Services	Inpatient Utilization-General Hospital/Acute Care	IPUa - Medicine 65-74 ALOS	10	4.77	15	4.74	1.01	0.8897	0.4253

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HEDIS Domain	Measure Name	Rate Name	Hi N	Hi Mean	Lo N	Lo Mean	Mean Ratio	Wilcoxon (Hi-Lo) P-value	Kruskal-Wallis (Hi-Avg-Lo) P-value
Use of Services	Mental Health Utilization-Percentage of Members Receiving Services	MPTa - MH Svs Inpat Tot M Pct	10	0.01	13	0.01	1.01	0.8768	0.7700
Use of Services	Ambulatory Care	AMBa - AMB Tot OP Tot Visit/1000	13	6327.36	14	6316.28	1.00	0.9420	0.8497
Use of Services	Inpatient Utilization-General Hospital/Acute Care	IPUa - Medicine 85+ ALOS	10	5.25	15	5.23	1.00	0.8897	0.3776
Use of Services	Inpatient Utilization-General Hospital/Acute Care	IPUa - Medicine Tot ALOS	10	4.92	15	4.93	1.00	0.9337	0.5570
Use of Services	Inpatient Utilization-General Hospital/Acute Care	IPUa - Tot IP ALOS 75-84	10	5.53	15	5.61	0.99	0.8897	0.6420
Use of Services	Inpatient Utilization-Non-Acute Care	NONa - Inpat Nonacute 75-84 ALOS	10	12.83	14	12.93	0.99	0.5007	0.5190
Use of Services	Outpatient Drug Utilization	ORXa - OP Rx 65-74 Avg Cst of Rx/Mem/Mnth	11	65.29	13	66.21	0.99	0.9078	0.5771
Use of Services	Mental Health Utilization-Percentage of Members Receiving Services	MPTa - MH Svs Inpat Tot Pct	10	0.01	13	0.01	0.98	0.6418	0.7441
Use of Services	Ambulatory Care	AMBa - AMB Tot OP 65-74 Visit/1000	13	5803.54	14	5956.73	0.97	0.5441	0.8036

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Use of Services	Frequency of Selected Procedures	FSP - Hysterectomy - Vaginal 85+ Procs/1000	10	0.21	15	0.21	0.97	0.6304	0.8103
Use of Services	Frequency of Selected Procedures	FSP - Total Knee Replacement M 65-74 Procs/1000	10	5.92	15	6.12	0.97	0.7603	0.0588
Use of Services	Frequency of Selected Procedures	FSP - Total Knee Replacement M 75-84 Procs/1000	10	5.68	15	5.87	0.97	0.8678	0.9013
Use of Services	Mental Health Utilization-Inpatient Discharges and ALOS	MIPa - MH Inpat 65+ M Ds/1000	10	4.52	13	4.65	0.97	0.7802	0.4906
Use of Services	Mental Health Utilization-Percentage of Members Receiving Services	MPTa - MH Svs Inpat Tot F Pct	10	0.52	13	0.54	0.97	0.9753	0.7985
Use of Services	Outpatient Drug Utilization	ORXa - OP Rx Tot Avg Cst of Rx/Mem/Mnth	11	67.59	13	69.46	0.97	0.7721	0.5165
Use of Services	Outpatient Drug Utilization	ORXa - OP Rx 75-84 Avg Cst of Rx/Mem/Mnth	11	68.92	13	70.98	0.97	0.6851	0.4121

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Use of Services	Outpatient Drug Utilization	ORXa - OP Rx 85+ Tot Cst of Rx	13	891947.95	14	930097.97	0.96	0.9419	0.3720
Use of Services	Inpatient Utilization-General Hospital/Acute Care	IPUa - Medicine 75-84 ALOS	10	4.94	15	5.18	0.95	0.9337	0.4975
Use of Services	Inpatient Utilization-General Hospital/Acute Care	IPUa - Surgery 75-84 Days/1000 MM	10	579.06	15	614.35	0.94	0.6774	0.7147
Use of Services	Inpatient Utilization-General Hospital/Acute Care	IPUa - Tot IP Days/1000 MM 85+	10	2331.05	15	2490.04	0.94	0.6373	0.5783
Use of Services	Chemical Dependency Utilization-Percentage of Members Receiving Services	CPTa - CD Svs Inpat 65+ Tot Pct	10	0.07	13	0.08	0.93	0.4025	0.2631
Use of Services	Frequency of Selected Procedures	FSP - Prostatectomy 65-74 Procs/1000	10	11.30	15	12.10	0.93	0.7603	0.0619
Use of Services	Inpatient Utilization-General Hospital/Acute Care	IPUa - Tot IP Days/1000 MM Tot	10	1360.41	15	1456.46	0.93	0.3899	0.4368
Use of Services	Frequency of Selected Procedures	FSP - Angioplasty (PTCA) F 85+ Procs/1000	10	2.29	15	2.49	0.92	0.9773	0.1649

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Use of Services	Outpatient Drug Utilization	ORXa - OP Rx 85+ Avg Cst of Rx/Mem/Mnth	11	61.28	13	66.74	0.92	0.6021	0.2983
Use of Services	Frequency of Selected Procedures	FSP - Reduction of Fracture Femur F 65-74 Procs/1000	10	2.24	15	2.47	0.91	0.6373	0.7696
Use of Services	Frequency of Selected Procedures	FSP - Partial Excision of Large Intestine F 75-84 Procs/1000	10	5.24	15	5.85	0.90	0.4540	0.0786
Use of Services	Inpatient Utilization-General Hospital/Acute Care	IPUa - Surgery 85+ Ds/1000	10	82.36	15	91.61	0.90	0.8461	0.7361
Use of Services	Inpatient Utilization-General Hospital/Acute Care	IPUa - Surgery 75-84 Ds/1000	10	82.93	15	92.29	0.90	0.5603	0.7163
Use of Services	Inpatient Utilization-General Hospital/Acute Care	IPUa - Tot IP Days/1000 MM 65-74	10	1020.66	15	1136.03	0.90	0.3317	0.1829
Use of Services	Frequency of Selected Procedures	FSP - Total Hip Replacement F 65-74 Procs/1000	10	2.72	15	3.06	0.89	0.5982	0.6750
Use of Services	Frequency of Selected Procedures	FSP - Angioplasty (PTCA)M 65-74 Procs/1000	10	12.36	15	14.07	0.88	0.3317	0.5315

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Use of Services	Frequency of Selected Procedures	FSP - Hysterectomy - Abdominal 75-84 Procs/1000	10	2.16	15	2.47	0.88	0.5982	0.0144
Use of Services	Inpatient Utilization-General Hospital/Acute Care	IPUa - Medicine 85+ Days/1000 MM	10	1656.38	15	1877.23	0.88	0.5235	0.3813
Use of Services	Inpatient Utilization-General Hospital/Acute Care	IPUa - Tot IP Days/1000 MM 75-84	10	1568.05	15	1777.56	0.88	0.2330	0.4292
Use of Services	Inpatient Utilization-General Hospital/Acute Care	IPUa - Surgery Tot Ds/1000	10	75.05	15	85.34	0.88	0.5235	0.5323
Use of Services	Inpatient Utilization-General Hospital/Acute Care	IPUa - Medicine Tot Days/1000 MM	10	813.94	15	925.66	0.88	0.3317	0.2844
Use of Services	Inpatient Utilization-General Hospital/Acute Care	IPUa - Tot IP Ds/1000 MM 75-84	10	277.20	15	316.45	0.88	0.0489	0.2007
Use of Services	Mental Health Utilization-Inpatient Discharges and ALOS	MIPa - MH Inpat Tot M Ds/1000	10	6.23	13	7.06	0.88	0.4757	0.6657
Use of Services	Inpatient Utilization-General Hospital/Acute Care	IPUa - Tot IP Ds/1000 MM Tot	10	237.18	15	274.03	0.87	0.0557	0.1317

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Use of Services	Frequency of Selected Procedures	FSP - Partial Excision of Large Intestine M 75-84 Procs/1000	10	5.07	15	5.88	0.86	0.5982	0.7281
Use of Services	Frequency of Selected Procedures	FSP - Prostatectomy 75-84 Procs/1000	10	12.24	15	14.20	0.86	0.3601	0.1605
Use of Services	Inpatient Utilization-General Hospital/Acute Care	IPUa - Medicine 75-84 Ds/1000	10	192.43	15	222.65	0.86	0.0631	0.2436
Use of Services	Inpatient Utilization-General Hospital/Acute Care	IPUa - Surgery 65-74 Ds/1000	10	68.46	15	79.40	0.86	0.4212	0.3171
Use of Services	Inpatient Utilization-General Hospital/Acute Care	IPUa - Tot IP Ds/1000 MM 85+	10	390.59	15	454.03	0.86	0.0806	0.2449
Use of Services	Frequency of Selected Procedures	FSP - Carotid Endarterectomy M 75-84 Procs/1000	10	6.92	15	8.14	0.85	0.2794	0.1321
Use of Services	Inpatient Utilization-General Hospital/Acute Care	IPUa - Medicine Tot Ds/1000	10	159.96	15	187.25	0.85	0.0631	0.1580
Use of Services	Inpatient Utilization-General Hospital/Acute Care	IPUa - Medicine 85+ Ds/1000	10	304.30	15	359.15	0.85	0.0714	0.1843
Use of Services	Inpatient Utilization-General Hospital/Acute Care	IPUa - Medicine 75-84 Days/1000 MM	10	977.68	15	1154.99	0.85	0.2120	0.3426

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HEDIS Domain	Measure Name	Rate Name	Hi N	Hi Mean	Lo N	Lo Mean	Mean Ratio	Wilcoxon (Hi-Lo) P-value	Kruskal-Wallis (Hi-Avg-Lo) P-value
Use of Services	Frequency of Selected Procedures	FSP - Cholecystectomy opn M 65-74 Procs/1000	10	1.75	15	2.12	0.83	0.0806	0.0873
Use of Services	Frequency of Selected Procedures	FSP - CABG M 65-74 Procs/1000	10	11.39	15	13.79	0.83	0.3601	0.3844
Use of Services	Mental Health Utilization-Inpatient Discharges and ALOS	MIPa - MH Inpat Tot Ds/1000	10	6.07	13	7.33	0.83	0.0881	0.3690
Use of Services	Outpatient Drug Utilization	ORXa - OP Rx 75-84 Tot Cst of Rx	13	3229474.99	14	3875863.13	0.83	0.7894	0.2491
Use of Services	Inpatient Utilization-General Hospital/Acute Care	IPUa - Tot IP Ds/1000 MM 65-74	10	179.33	15	221.33	0.81	0.0136	0.0244
Use of Services	Inpatient Utilization-Non-Acute Care	NONa - Inpat Nonacute Tot Days/1000	10	521.70	14	641.79	0.81	0.2535	0.5084
Use of Services	Inpatient Utilization-General Hospital/Acute Care	IPUa - Medicine 65-74 Days/1000 MM	10	534.09	15	671.26	0.80	0.0806	0.0814
Use of Services	Mental Health Utilization-Inpatient Discharges and ALOS	MIPa - MH Inpat Tot F Ds/1000	10	5.96	13	7.50	0.80	0.1138	0.3395
Use of Services	Inpatient Utilization-Non-Acute Care	NONa - Inpat Nonacute 65-74 Days/1000	10	271.64	14	341.24	0.80	0.2535	0.4284

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HEDIS Domain	Measure Name	Rate Name	Hi N	Hi Mean	Lo N	Lo Mean	Mean Ratio	Wilcoxon (Hi-Lo) P-value	Kruskal-Wallis (Hi-Avg-Lo) P-value
Use of Services	Chemical Dependency Utilization-Percentage of Members Receiving Services	CPTa - CD Svs Any 65+ M Pct	10	0.15	13	0.18	0.79	0.2512	0.7014
Use of Services	Frequency of Selected Procedures	FSP - CABG M 75-84 Procs/1000	10	10.96	15	13.97	0.78	0.0907	0.0689
Use of Services	Frequency of Selected Procedures	FSP - Angioplasty (PTCA)F 65-74 Procs/1000	10	5.81	15	7.42	0.78	0.5235	0.7903
Use of Services	Inpatient Utilization-General Hospital/Acute Care	IPUa - Medicine 65-74 Ds/1000	10	109.44	15	140.96	0.78	0.0084	0.0274
Use of Services	Ambulatory Care	AMBa - AMB Tot Amb 75-84 Surg/Procs Procs/1000	13	196.66	15	255.34	0.77	0.1533	0.2740
Use of Services	Chemical Dependency Utilization-Percentage of Members Receiving Services	CPTa - CD Svs Inpat 65+ F Pct	10	0.06	13	0.08	0.77	0.5148	0.1404
Use of Services	Frequency of Selected Procedures	FSP - Cardiac Catheterization M 75-84 Procs/1000	10	28.90	15	37.35	0.77	0.0806	0.1999

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HEDIS Domain	Measure Name	Rate Name	Hi N	Hi Mean	Lo N	Lo Mean	Mean Ratio	Wilcoxon (Hi-Lo) P-value	Kruskal-Wallis (Hi-Avg-Lo) P-value
Use of Services	Frequency of Selected Procedures	FSP - Hysterectomy - Abdominal 65-74 Procs/1000	10	2.32	15	3.02	0.77	0.5982	0.5513
Use of Services	Frequency of Selected Procedures	FSP - Partial Excision of Large Intestine F 65-74 Procs/1000	10	3.38	15	4.39	0.77	0.2120	0.2819
Use of Services	Frequency of Selected Procedures	FSP - Reduction of Fracture Femur M 65-74 Procs/1000	10	1.21	15	1.58	0.77	0.0327	0.1176
Use of Services	Frequency of Selected Procedures	FSP - Cardiac Catheterization F 75-84 Procs/1000	10	18.30	15	23.87	0.77	0.0489	0.1017
Use of Services	Inpatient Utilization-Non-Acute Care	NONa - Inpat Nonacute Tot Ds/1000	10	38.86	14	50.49	0.77	0.2787	0.4247
Use of Services	Outpatient Drug Utilization	ORXa - OP Rx 65-74 Tot Cst of Rx	13	4813728.51	14	6255621.20	0.77	0.4814	0.1479
Use of Services	Outpatient Drug Utilization	ORXa - OP Rx Tot Tot Cst of Rx	13	9774783.76	14	12740244.60	0.77	0.5439	0.1680

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HEDIS Domain	Measure Name	Rate Name	Hi N	Hi Mean	Lo N	Lo Mean	Mean Ratio	Wilcoxon (Hi-Lo) P-value	Kruskal-Wallis (Hi-Avg-Lo) P-value
Use of Services	Chemical Dependency Utilization-Percentage of Members Receiving Services	CPTa - CD Svs Inpat Tot M Pct	10	0.13	13	0.17	0.76	0.1824	0.2996
Use of Services	Frequency of Selected Procedures	FSP - Cholecystectomy cld (laparoscopic) M 75-84 Procs/1000	10	4.12	15	5.43	0.76	0.2672	0.2037
Use of Services	Frequency of Selected Procedures	FSP - Cardiac Catheterization F 85+ Procs/1000	10	6.47	15	8.65	0.75	0.4536	0.6772
Use of Services	Ambulatory Care	AMBa - AMB Tot ER 85+ Visit/1000	13	350.39	15	473.93	0.74	0.0530	0.2287
Use of Services	Ambulatory Care	AMBa - AMB Tot Amb Tot Surg/Procs Procs/1000	13	172.93	15	234.90	0.74	0.0654	0.1756
Use of Services	Frequency of Selected Procedures	FSP - Cardiac Catheterization M 65-74 Procs/1000	10	29.78	15	40.38	0.74	0.0714	0.0497
Use of Services	Frequency of Selected Procedures	FSP - CABG F 65-74 Procs/1000	10	4.25	15	5.83	0.73	0.1572	0.1504

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HEDIS Domain	Measure Name	Rate Name	Hi N	Hi Mean	Lo N	Lo Mean	Mean Ratio	Wilcoxon (Hi-Lo) P-value	Kruskal-Wallis (Hi-Avg-Lo) P-value
Use of Services	Ambulatory Care	AMBa - AMB Tot Amb 85+ Surg/Procs Procs/1000	13	136.72	15	190.94	0.72	0.0800	0.1075
Use of Services	Inpatient Utilization-Non-Acute Care	NONa - Inpat Nonacute 65-74 Ds/1000	10	20.00	14	27.86	0.72	0.1688	0.3178
Use of Services	Ambulatory Care	AMBa - AMB Tot Amb 65-74 Surg/Procs Procs/1000	13	164.04	15	229.68	0.71	0.0427	0.1053
Use of Services	Ambulatory Care	AMBa - AMB Tot ER 75-84 Visit/1000	13	224.41	15	317.39	0.71	0.0724	0.2161
Use of Services	Inpatient Utilization-Non-Acute Care	NONa - Inpat Nonacute 75-84 Ds/1000	10	51.03	14	71.39	0.71	0.1688	0.2798
Use of Services	Inpatient Utilization-Non-Acute Care	NONa - Inpat Nonacute 75-84 Days/1000	10	654.22	14	920.50	0.71	0.1207	0.2960
Use of Services	Chemical Dependency Utilization-Percentage of Members Receiving Services	CPTa - CD Svs Inpat Tot Pct	10	0.10	13	0.14	0.68	0.1450	0.1854

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HEDIS Domain	Measure Name	Rate Name	Hi N	Hi Mean	Lo N	Lo Mean	Mean Ratio	Wilcoxon (Hi-Lo) P-value	Kruskal-Wallis (Hi-Avg-Lo) P-value
Use of Services	Frequency of Selected Procedures	FSP - Partial Excision of Large Intestine M 65-74 Procs/1000	10	3.29	15	4.81	0.68	0.0907	0.1072
Use of Services	Ambulatory Care	AMBa - AMB Tot ER Tot Visit/1000	13	201.80	15	302.06	0.67	0.0341	0.1149
Use of Services	Chemical Dependency Utilization-Inpatient Discharges and ALOS	CIPa - CD IP 65+ M Ds/1000	10	1.01	13	1.51	0.67	0.2773	0.5443
Use of Services	Frequency of Selected Procedures	FSP - Cholecystectomy cld (laparoscopic) F 65-74 Procs/1000	10	5.02	15	7.50	0.67	0.0071	0.0156
Use of Services	Frequency of Selected Procedures	FSP - Cardiac Catheterization M 85+ Procs/1000	10	11.86	15	18.06	0.66	0.0806	0.2048
Use of Services	Inpatient Utilization-Non-Acute Care	NONa - Inpat Nonacute 85+ Days/1000	10	1382.82	14	2114.18	0.65	0.0841	0.2360
Use of Services	Inpatient Utilization-Non-Acute Care	NONa - Inpat Nonacute 85+ Ds/1000	10	106.79	14	165.17	0.65	0.1514	0.2155

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HEDIS Domain	Measure Name	Rate Name	Hi N	Hi Mean	Lo N	Lo Mean	Mean Ratio	Wilcoxon (Hi-Lo) P-value	Kruskal-Wallis (Hi-Avg-Lo) P-value
Use of Services	Ambulatory Care	AMBa - AMB Tot ER 65-74 Visit/1000	13	146.19	15	230.17	0.64	0.0050	0.0322
Use of Services	Frequency of Selected Procedures	FSP - Cholecystectomy cld (laparoscopic) M 65-74 Procs/1000	10	3.12	15	4.85	0.64	0.0071	0.0140
Use of Services	Frequency of Selected Procedures	FSP - Cholecystectomy opn F 65-74 Procs/1000	10	1.72	15	2.69	0.64	0.1139	0.0001
Use of Services	Frequency of Selected Procedures	FSP - Reduction of Fracture Femur M 75-84 Procs/1000	10	2.75	15	4.32	0.64	0.0401	0.0249
Use of Services	Chemical Dependency Utilization-Inpatient Discharges and ALOS	CIPa - CD IP 65+ Tot Ds/1000	10	0.83	13	1.31	0.63	0.1003	0.2073
Use of Services	Frequency of Selected Procedures	FSP - Cardiac Catheterization F 65-74 Procs/1000	10	15.49	15	25.13	0.62	0.0051	0.0267
Use of Services	Chemical Dependency Utilization-Percentage of Members Receiving Services	CPTa - CD Svs Inpat Tot F Pct	10	0.07	13	0.11	0.61	0.2512	0.1747

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HEDIS Domain	Measure Name	Rate Name	Hi N	Hi Mean	Lo N	Lo Mean	Mean Ratio	Wilcoxon (Hi-Lo) P-value	Kruskal-Wallis (Hi-Avg-Lo) P-value
Use of Services	Frequency of Selected Procedures	FSP - Carotid Endarterectomy M 85+ Procs/1000	10	2.74	15	4.50	0.61	0.2995	0.5882
Use of Services	Frequency of Selected Procedures	FSP - Cholecystectomy cld (laparoscopic) F 75-84 Procs/1000	10	4.29	15	7.07	0.61	0.0213	0.0041
Use of Services	Inpatient Utilization-General Hospital/Acute Care	IPUa - Maternity Tot Days/1000 MM	10	0.59	15	0.97	0.61	0.2594	0.5469
Use of Services	Ambulatory Care	AMBa - AMB Tot Observ Rm Tot Ds Stays/1000	11	9.99	15	16.75	0.60	0.0692	0.2021
Use of Services	Chemical Dependency Utilization-Inpatient Discharges and ALOS	CIPa - CD IP 65+ F Ds/1000	10	0.69	13	1.16	0.60	0.3684	0.0877
Use of Services	Chemical Dependency Utilization-Percentage of Members Receiving Services	CPTa - CD Svs Any Tot M Pct	10	0.21	13	0.36	0.59	0.5981	0.7928

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HEDIS Domain	Measure Name	Rate Name	Hi N	Hi Mean	Lo N	Lo Mean	Mean Ratio	Wilcoxon (Hi-Lo) P-value	Kruskal-Wallis (Hi-Avg-Lo) P-value
Use of Services	Frequency of Selected Procedures	FSP - Hysterectomy - Vaginal 65-74 Procs/1000	10	1.15	15	1.95	0.59	0.0427	0.0827
Use of Services	Frequency of Selected Procedures	FSP - CABG F 75-84 Procs/1000	10	4.00	15	6.95	0.58	0.0021	0.0034
Use of Services	Ambulatory Care	AMBa - AMB Tot Observ Rm 65-74 Ds Stays/1000	11	7.80	15	13.95	0.56	0.0429	0.2153
Use of Services	Frequency of Selected Procedures	FSP - Carotid Endarterectomy F 65-74 Procs/1000	10	2.18	15	3.87	0.56	0.0284	0.0152
Use of Services	Frequency of Selected Procedures	FSP - Carotid Endarterectomy F 75-84 Procs/1000	10	2.48	15	4.47	0.56	0.0184	0.0542
Use of Services	Ambulatory Care	AMBa - AMB Tot Observ Rm 85+ Ds Stays/1000	10	12.89	15	23.88	0.54	0.0375	0.1118
Use of Services	Frequency of Selected Procedures	FSP - Carotid Endarterectomy M 65-74 Procs/1000	10	3.52	15	6.50	0.54	0.0125	0.0084

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HEDIS Domain	Measure Name	Rate Name	Hi N	Hi Mean	Lo N	Lo Mean	Mean Ratio	Wilcoxon (Hi-Lo) P-value	Kruskal-Wallis (Hi-Avg-Lo) P-value
Use of Services	Chemical Dependency Utilization-Percentage of Members Receiving Services	CPTa - CD Svs Any 65+ Tot Pct	10	0.11	13	0.20	0.53	0.5981	0.8721
Use of Services	Frequency of Selected Procedures	FSP - Reduction of Fracture Femur M 85+ Procs/1000	10	9.45	15	18.05	0.52	0.0666	0.1115
Use of Services	Ambulatory Care	AMBa - AMB Tot Observ Rm 75-84 Ds Stays/1000	11	9.07	15	18.38	0.49	0.0224	0.1276
Use of Services	Chemical Dependency Utilization-Inpatient Discharges and ALOS	CIPa - CD IP Tot M Ds/1000	10	1.50	13	3.04	0.49	0.1450	0.2563
Use of Services	Chemical Dependency Utilization-Percentage of Members Receiving Services	CPTa - CD Svs Amb 65+ M Pct	11	0.05	12	0.10	0.48	0.5347	0.4697
Use of Services	Chemical Dependency Utilization-Inpatient Discharges and ALOS	CIPa - CD IP Tot Ds/1000	10	1.13	13	2.39	0.47	0.0771	0.0822

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HEDIS Domain	Measure Name	Rate Name	Hi N	Hi Mean	Lo N	Lo Mean	Mean Ratio	Wilcoxon (Hi-Lo) P-value	Kruskal-Wallis (Hi-Avg-Lo) P-value
Use of Services	Frequency of Selected Procedures	FSP - Prostatectomy 85+ Procs/1000	10	9.45	15	19.93	0.47	0.0671	0.0856
Use of Services	Inpatient Utilization-General Hospital/Acute Care	IPUa - Maternity Tot Ds/1000	10	0.15	15	0.32	0.47	0.3976	0.5302
Use of Services	Frequency of Selected Procedures	FSP - Partial Excision of Large Intestine M 85+ Procs/1000	10	4.04	15	8.86	0.46	0.3847	0.4689
Use of Services	Chemical Dependency Utilization-Inpatient Discharges and ALOS	CIPa - CD IP Tot F Ds/1000	10	0.83	13	1.85	0.45	0.1824	0.0498
Use of Services	Chemical Dependency Utilization-Percentage of Members Receiving Services	CPTa - CD Svs Any Tot Pct	10	0.15	13	0.34	0.44	0.4382	0.5554
Use of Services	Frequency of Selected Procedures	FSP - Cholecystectomy cld (laparoscopic) F 85+ Procs/1000	10	1.82	15	4.25	0.43	0.0415	0.0725

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HEDIS Domain	Measure Name	Rate Name	Hi N	Hi Mean	Lo N	Lo Mean	Mean Ratio	Wilcoxon (Hi-Lo) P-value	Kruskal-Wallis (Hi-Avg-Lo) P-value
Use of Services	Chemical Dependency Utilization-Percentage of Members Receiving Services	CPTa - CD Svs Amb Tot M Pct	11	0.08	12	0.21	0.40	1.0000	0.2947
Use of Services	Chemical Dependency Utilization-Percentage of Members Receiving Services	CPTa - CD Svs Any 65+ F Pct	10	0.08	13	0.22	0.37	1.0000	0.6633
Use of Services	Chemical Dependency Utilization-Percentage of Members Receiving Services	CPTa - CD Svs Any Tot F Pct	10	0.10	13	0.33	0.32	0.5149	0.4527
Use of Services	Chemical Dependency Utilization-Percentage of Members Receiving Services	CPTa - CD Svs Amb 65+ Tot Pct	11	0.03	12	0.12	0.25	0.5347	0.2022
Use of Services	Chemical Dependency Utilization-Percentage of Members Receiving Services	CPTa - CD Svs Amb Tot Pct	11	0.05	12	0.21	0.25	0.7816	0.2952

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HEDIS Domain	Measure Name	Rate Name	Hi N	Hi Mean	Lo N	Lo Mean	Mean Ratio	Wilcoxon (Hi-Lo) P-value	Kruskal-Wallis (Hi-Avg-Lo) P-value
Use of Services	Chemical Dependency Utilization-Percentage of Members Receiving Services	CPTa - CD Svs Amb Tot F Pct	11	0.03	12	0.22	0.15	1.0000	0.2577
Use of Services	Chemical Dependency Utilization-Percentage of Members Receiving Services	CPTa - CD Svs Amb 65+ F Pct	11	0.02	12	0.13	0.13	0.8740	0.0648
Use of Services	Chemical Dependency Utilization-Percentage of Members Receiving Services	CPTa - CD Svs Day/Night Tot M Pct	11	0.00	12	0.00	0.08	0.3282	0.0628
Use of Services	Chemical Dependency Utilization-Percentage of Members Receiving Services	CPTa - CD Svs Day/Night Tot Pct	11	0.00	12	0.00	0.03	0.0259	0.0709
Use of Services	Chemical Dependency Utilization-Percentage of Members Receiving Services	CPTa - CD Svs Day/Night Tot F Pct	11	0.00	12	0.01	0.02	0.0612	0.1916

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HEDIS Domain	Measure Name	Rate Name	Hi N	Hi Mean	Lo N	Lo Mean	Mean Ratio	Wilcoxon (Hi-Lo) P-value	Kruskal-Wallis (Hi-Avg-Lo) P-value
Use of Services	Chemical Dependency Utilization-Percentage of Members Receiving Services	CPTa - CD Svs Day/Night 65+ M Pct	11	0.00	12	0.00	0.00	0.3841	0.0997
Use of Services	Chemical Dependency Utilization-Percentage of Members Receiving Services	CPTa - CD Svs Day/Night 65+ F Pct	11	0.00	12	0.00	0.00	0.1863	0.3677
Use of Services	Chemical Dependency Utilization-Percentage of Members Receiving Services	CPTa - CD Svs Day/Night 65+ Tot Pct	11	0.00	12	0.00	0.00	0.1863	0.1022

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HEDIS Domain	Measure Name	Hi N	Hi Mean	Lo N	Lo Mean	Mean Ratio	Wilcoxon (Hi-Lo) P-value	Kruskal-Wallis (Hi-Avg-Lo) P-value
Effectiveness of Care	Flu Shots for Older Adults	8	47.77	9	41.84	1.14	0.11	0.076
Effectiveness of Care	Pneumonia Vaccination Status for Older Adults	8	64.96	9	57.32	1.13	0.11	0.076
Effectiveness of Care	Advising Smokers to Quit	6	54.49	9	59.68	0.91	0.28	0.5
Satisfaction with the Experience of Care	Getting Care Quickly	8	91.35	9	87.21	1.05	0.014	0.03
Satisfaction with the Experience of Care	Getting Needed Care	8	85.57	9	83.13	1.03	0.47	0.63
Satisfaction with the Experience of Care	Customer Service	8	82.18	9	80.72	1.02	0.96	0.93
Satisfaction with the Experience of Care	How Well Doctors Communicate	8	94.49	9	92.96	1.02	0.47	0.63
Satisfaction with the Experience of Care	Courteous and Helpful Office Staff	8	97.21	9	95.88	1.01	0.11	0.23
Satisfaction with the Experience of Care	Rating of All Health Care	8	86.37	9	86.65	1.00	0.53	0.78
Satisfaction with the Experience of Care	Rating of Health Plan	8	81.55	9	82.19	0.99	0.96	0.95
Satisfaction with the Experience of Care	Rating of Personal Doctor	8	83.79	9	85.15	0.98	0.36	0.59
Satisfaction with the Experience of Care	Rating of Specialist Seen Most Often	8	82.63	9	87.19	0.95	0.06	0.06

APPENDIX B
MEDICARE HEALTH OUTCOMES SURVEY
MCS VARIATION EVALUATION QUESTIONNAIRE

The Medicare Health Outcomes Survey (HOS) is a HEDIS® outcome measure for the Medicare population in managed care. The HOS assesses a Medicare+Choice Organization's (M+CO's) ability to maintain or improve the physical and mental health of its beneficiaries over a two year period of time. The primary component of HOS is the SF-36® Health Survey, which generates two summary scores, the Physical Component Summary (PCS) and the Mental Component Summary (MCS).

Recently, the results from the first HOS *Cohort* (*Cohort I*) became available. Of the M+COs participating, 28 plans showed statistically significant changes in the case-mix adjusted MCS score (i.e., having a case-mix adjusted SF-36 MCS change score at least two standard deviations above or below the mean predicted change score value for the plan). The Centers for Medicare & Medicaid Services (CMS) contracted with the Health Services Advisory Group (HSAG) to identify the sources of variation in *Cohort I* HOS MCS change scores. HSAG, working with the National Committee for Quality Assurance (NCQA), is evaluating whether there are any specific plan practices or features associated with differences in MCS scores.

This questionnaire, which asks about your plan's programs and features, is an integral component of the MCS Study. Since improvements in mental well-being will be related to higher MCS scores, this questionnaire attempts to identify activities specifically targeting mental health conditions. However, programs that target mental health conditions are unlikely to be the only causes of plan-level MCS score differences. Therefore, it is important to monitor other activities that might have an indirect effect on mental well-being, such as disease management programs. Since the *Cohort I* scores are calculated from a baseline survey fielded in 1998 and a follow-up survey in 2000, the following questionnaire requests information on only those programs that were implemented or offered between 1998 and 2000.

Your plan is one of a sample of M+COs that are being asked to complete this questionnaire. Every plan that completes this survey will receive a summary of the findings. As part of this study, we may ask you to provide more information about the activities and programs identified in this questionnaire.

Upon completion of the questionnaire, please return it to David Drachman **electronically**. If you have any questions, please contact me.

Thank you for your help.

David Drachman, PhD
Health Services Advisory Group
1600 East Northern, Suite 100
Phoenix, AZ 85020
602.665.6122 (phone) 602.241.0757 (fax)

Please submit the survey electronically to:
azpro.ddrachman@sdps.org

Note: The easiest way to move within the document is to use the TAB key and/or mouse, NOT the return key nor the directional arrows.

1. I. General Information

1. Please provide contact information for the person completing the questionnaire.

Name
Title
Plan Name
Plan Number
Address
Phone #
Fax #
E-mail Address

2. Date your managed care plan was first incorporated (If membership has been rolled from one market to another, indicate the date of the M+CO's surviving license.):

3. Is the M+CO part of a:

National organization ☐	Regional organization ☐	Independent ☐

4. List the state(s) in which your M+CO is licensed to operate:

5. Year End Membership:

Year	Medicare Enrollment	Commercial Enrollment	Medicaid Enrollment
1998			
1999			
2000			

Beneficiary Programs

Please identify any ***beneficiary*** programs your M+CO had in place between 1998 and 2000 that were available to your ***Medicare beneficiaries***. Check all that apply by year.

Disease Management Programs:	**1998**	**1999**	**2000**
Arthritis	☐	☐	☐
Cancer	☐	☐	☐
Cardiac Rehabilitation	☐	☐	☐
Chronic Obstructive Pulmonary Disease/Asthma	☐	☐	☐
Chronic Pain Management	☐	☐	☐
Congestive Heart Failure	☐	☐	☐
Depression	☐	☐	☐
Diabetes Mellitus	☐	☐	☐
Hypertension	☐	☐	☐
Lower Back Pain	☐	☐	☐
Osteoporosis	☐	☐	☐
Stroke Rehabilitation	☐	☐	☐
Other DM programs (please specify below):			
	☐	☐	☐
	☐	☐	☐
	☐	☐	☐

Other Programs:	**1998**	**1999**	**2000**
Bereavement support group	☐	☐	☐
Depression screening	☐	☐	☐
Fitness classes in the community	☐	☐	☐
Seniors social networking groups or clubs	☐	☐	☐
Stress management classes	☐	☐	☐
Other programs (please specify below):			
	☐	☐	☐
	☐	☐	☐

Behavioral Health Practice Guidelines/Educational Materials

Please identify any practice guidelines, conferences or screening tools your M+CO ***distributed to providers*** on recognizing and treating depression, substance abuse or other behavioral health conditions among the ***Medicare*** population. Check all that apply by year.

Depression	**1998**	**1999**	**2000**
Clinical practice guidelines	☐	☐	☐
Conferences or courses for CME credits	☐	☐	☐
Screening tools and scoring algorithms	☐	☐	☐

	1998	**1999**	**2000**
Clinical practice guidelines	☐	☐	☐
Conferences or courses for CME credits	☐	☐	☐
Screening tools and scoring algorithms	☐	☐	☐

Other clinical practice guidelines:	**1998**	**1999**	**2000**
	☐	☐	☐
	☐	☐	☐
	☐	☐	☐
Other conferences or courses for CME credits:			
	☐	☐	☐
	☐	☐	☐
	☐	☐	☐
Other screening tools and scoring algorithms:			
	☐	☐	☐
	☐	☐	☐
	☐	☐	☐

Behavioral Health Member Education and Outreach

Indicate the type of outreach you performed to educate ***Medicare beneficiaries*** on behavioral health topics between 1998 and 2000. Check all that apply by year.

Behavioral Health Outreach Activities	**1998**	**1999**	**2000**
Mailing of newsletter(s) or other publications containing information on behavioral health	☐	☐	☐
Screenings at local events	☐	☐	☐
Other outreach activities (please specify below):			
	☐	☐	☐
	☐	☐	☐
	☐	☐	☐

Indicate the topic(s) covered by the outreach activities marked above. Check all that apply by year.

Outreach Topics	**1998**	**1999**	**2000**
Basic facts on behavioral health (depression, stress, etc.)	☐	☐	☐
Behavioral health treatment options	☐	☐	☐
Coping with grief and loss	☐	☐	☐
How to talk to your doctor about depression	☐	☐	☐
Substance abuse	☐	☐	☐
Other topics (please specify below):			
	☐	☐	☐
	☐	☐	☐
	☐	☐	☐

Benefits and Coverage

Please respond to the following questions according to the year in which the benefits were offered.

	1998	1999	2000
1. Were there copays for mental health services?	Yes ☐ No ☐ If yes, amount: Ambulatory: $ _____ Inpatient: $ _____	Yes ☐ No ☐ If yes, amount: Ambulatory: $ _____ Inpatient: $ _____	Yes ☐ No ☐ If yes, amount: Ambulatory: $ _____ Inpatient: $ _____
2. Was there a lifetime limit on mental health benefits?	Yes ☐ No ☐ If yes, amount: $_____	Yes ☐ No ☐ If yes, amount: $_____	Yes ☐ No ☐ If yes, amount: $_____
3. Was there an annual limit on the number of mental health visits?	Yes ☐ No ☐ If yes, number of visits _____	Yes ☐ No ☐ If yes, number of visits _____	Yes ☐ No ☐ If yes, number of visits _____
4. Were there prescription/ pharmacy benefits?	Yes ☐ No ☐	Yes ☐ No ☐	Yes ☐ No ☐
5. Was there a deductible for prescription medications?	Yes ☐ No ☐ If yes, amount: $_____	Yes ☐ No ☐ If yes, amount: $_____	Yes ☐ No ☐ If yes, amount: $_____
6. Was there a prescription copay?	Yes ☐ No ☐ If yes, amounts: Generic $_____ Formulary $_____ Non-formulary $_____	Yes ☐ No ☐ If yes, amounts: Generic $_____ Formulary $_____ Non-formulary $_____	Yes ☐ No ☐ If yes, amounts: Generic $_____ Formulary $_____ Non-formulary $_____
7. Was there prescription co-insurance?	Yes ☐ No ☐ If yes, indicate percentage beneficiary responsible for :_____%	Yes ☐ No ☐ If yes, indicate percentage beneficiary responsible for :_____%	Yes ☐ No ☐ If yes, indicate percentage beneficiary responsible for :_____%
8. Was there an annual limit on the amount paid for prescription medications?	Yes ☐ No ☐ If yes, amount: $_____	Yes ☐ No ☐ If yes, amount: $_____	Yes ☐ No ☐ If yes, amount: $_____
9. Were antidepressants or other medications for mental health conditions in a formulary?	Yes ☐ No ☐	Yes ☐ No ☐	Yes ☐ No ☐

10. Were members able to self-refer to mental health providers?	Yes ☐ No ☐	Yes ☐ No ☐	Yes ☐ No ☐

Behavioral Health Vendors

Please list all behavioral health vendors with which your M+CO contracted between 1998 and 2000.

Company Name:	
Start date of contract:	End date of contract:
Does the company have NCQA MBHO[4] Accreditation?	Yes ☐ No ☐
Please describe the services the vendor provided:	
Types and frequency of reports received from vendor:	

Company Name:	
Start date of contract:	End date of contract:
Does the company have NCQA MBHO Accreditation?	Yes ☐ No ☐
Please describe the services the vendor provided:	
Types and frequency of reports received from vendor:	

[4] Managed Behavioral Healthcare Organization

Company Name:	
Start date of contract:	End date of contract:
Does the company have NCQA MBHO Accreditation? Yes ☐ No ☐	
Please describe the services the vendor provided:	
Types and frequency of reports received from vendor:	

Company Name:	
Start date of contract:	End date of contract:
Does the company have NCQA MBHO Accreditation? Yes ☐ No ☐	
Please describe the services the vendor provided:	
Types and frequency of reports received from vendor:	

Arrangements with Public Health, Educational and Social Service Organizations

List the names of public health, educational or social service agencies with which your M+CO had arrangements for ***Medicare beneficiaries*** between 1998 and 2000 (e.g. Meals on Wheels, transportation services, etc.).

For each arrangement, please provide the following:

Agency Name	**Services Covered**	**Financial Reimbursement***	**Number Referred**	**Year(s) Covered by Agreement**		
				1998	1999	2000
		Yes ☐ No ☐		☐	☐	☐
		Yes ☐ No ☐		☐	☐	☐
		Yes ☐ No ☐		☐	☐	☐
		Yes ☐ No ☐		☐	☐	☐
		Yes ☐ No ☐		☐	☐	☐
		Yes ☐ No ☐		☐	☐	☐
		Yes ☐ No ☐		☐	☐	☐
		Yes ☐ No ☐		☐	☐	☐

*Indicate whether the health plan financially reimburses the agency for the services provided.

Quality Improvement Activities

Please describe quality improvement activities focused on ***behavioral health care*** your M+CO conducted between 1998 and 2000 for ***Medicare beneficiaries***.

Activity #1:	
Start date:	End date:
Target Population/Intervention:	
Description:	

Activity #2:	
Start date:	End date:
Target Population/Intervention:	
Description:	

Activity #3:	
Start date:	End date:
Target Population/Intervention:	
Description:	

Activity #4:	
Start date:	End date:
Target Population/Intervention:	
Description:	

Other

Use this section to provide any other information you would like us to know about ***behavioral health care*** services your M+CO offered ***Medicare beneficiaries*** between 1998 and 2000. (You may attach additional information if available).

Thank you for taking the time to complete this questionnaire. As a part of the study, we may be contacting you to provide more information about the activities and programs identified in this questionnaire. We will also provide a summary of the findings of this survey to all those who participated.

If you have any questions, please do not hesitate to contact us. Please submit the survey to the address below.
Thank you again for your time and support!

David Drachman, PhD
Health Services Advisory Group
1600 East Northern, Suite 100
Phoenix, AZ 85020
602.665.6122 (phone) 602.241.0757 (fax)

Please submit the survey electronically to:
azpro.ddrachman@sdps.org

APPENDIX C
FINDINGS FROM THE MCS VARIATION EVALUATION SURVEY

Note: The counts and percentages in the following tables are based on the responses from the nine (9) positive MCS outliers, thirteen (13) average MCS plans and seven (7) negative MCS outliers, which completed and returned the MCS Variation Evaluation Survey.

Organization Type	Outlier and Plan Types					
	Positive	***Average***	***Negative***	***Positive***	***Average***	***Negative***
National	3	9	3	33%	69%	43%
Regional	1	1	1	11%	8%	14%
Independent	5	3	3	56%	23%	43%
No Response	0	0	0	0%	0%	0%

Year End Membership (in thousands)	Outlier and Plan Membership					
	Positive	***Average***	***Negative***	***Positive***	***Average***	***Negative***
1-25	7	6	2	78%	46%	29%
25-50	1	4	4	11%	31%	57%
50-100	0	2	1	0%	15%	14%
100+	1	1	0	11%	8%	0%

MBHO Vendor	Outlier and Plan Vendor Status					
	Positive	***Average***	***Negative***	***Positive***	***Average***	***Negative***
Yes - All NCQA Accredited	0	3	1	0%	23%	14%
Yes - At least 1 NCQA Accredited	2	2	3	22%	15%	43%
Yes - Not NCQA Accredited	2	4	3	22%	31%	43%
No	5	4	0	56%	31%	0%

APPENDIX C
FINDINGS FROM THE MCS VARIATION EVALUATION SURVEY

NCQA Accreditation Status	Medicare Product - Plans with Returned Surveys					
	Positive	***Average***	***Negative***	***Positive***	***Average***	***Negative***
Excellent	2	6	0	22%	46%	0%
Commendable	2	3	1	22%	23%	14%
Accredited	0	1	1	0%	8%	14%
Provisional	0	0	0	0%	0%	0%
None	5	2	5	56%	15%	71%
Total Any Accreditation	4	10	2	44%	77%	29%

NCQA Accreditation Status	Medicare Product - All Plans in Study*					
	Positive	***Average***	***Negative***	***Positive***	***Average***	***Negative***
Excellent	3	6	0	23%	30%	0%
Commendable	2	3	2	15%	15%	13%
Accredited	0	1	2	0%	5%	13%
Provisional	0	0	0	0%	0%	0%
None	8	10	11	62%	50%	73%
Total Any Accreditation	5	10	4	38%	50%	27%

NCQA Accreditation Status	Commercial Product - Plans with Returned Surveys					
	Positive	***Average***	***Negative***	***Positive***	***Average***	***Negative***
Excellent	6	7	1	67%	35%	14%
Commendable	0	2	2	0%	10%	29%
Accredited	0	1	0	0%	5%	0%
Provisional	0	0	0	0%	0%	0%
None	3	10	4	33%	50%	57%
Total Any Accreditation	6	10	3	67%	50%	43%

NCQA Accreditation Status	Commercial Product - All Plans in Study*					
	Positive	***Average***	***Negative***	***Positive***	***Average***	***Negative***
Excellent	7	7	0	54%	35%	0%
Commendable	1	2	4	8%	10%	27%
Accredited	1	1	2	8%	5%	13%
Provisional	0	0	0	0%	0%	0%
None	4	10	9	31%	50%	60%
Total Any Accreditation	9	10	6	69%	50%	40%

* *This table is based on the 15 positive MCS outliers, 20 average MCS plans and 13 negative MCS outliers that were in the survey sample.*

DISEASE MANAGEMENT PROGRAMS

	Positive Outliers			
	1998	1999	2000	1998-2000*
Arthritis	0	0	0	0
Cancer	0	0	0	0
Cardiac Rehabilitation	2	2	2	2
COPD/Asthma	3	3	3	3
Chronic Pain Mgmt	0	0	0	0
CHF	3	3	4	4
Depression	2	4	4	4
Diabetes	4	5	6	7
Hypertension	0	0	0	0
Lower Back Pain	0	0	0	0
Osteoporosis	0	0	0	0
Stroke Rehab	0	0	0	0
Other	2	2	2	2

	Average Plans			
	1998	1999	2000	1998-2000*
Arthritis	0	0	0	0
Cancer	0	0	0	0
Cardiac Rehabilitation	0	1	1	1
COPD/Asthma	8	8	7	9
Chronic Pain Mgmt	0	0	0	0
CHF	7	9	10	10
Depression	4	5	5	6
Diabetes	7	9	8	10
Hypertension	2	2	2	2
Lower Back Pain	1	1	1	1
Osteoporosis	0	0	0	0
Stroke Rehab	0	0	0	0
Other	5	6	6	6

	Negative Outliers			
	1998	1999	2000	1998-2000*
Arthritis	0	0	0	0
Cancer	1	1	1	1
Cardiac Rehabilitation	2	2	2	2
COPD/Asthma	3	4	3	6
Chronic Pain Mgmt	0	0	0	0
CHF	5	6	7	7
Depression	1	1	2	2
Diabetes	4	4	4	5
Hypertension	0	0	0	0
Lower Back Pain	0	0	0	0
Osteoporosis	0	0	1	1
Stroke Rehab	1	1	1	1
Other	2	2	2	2

**Plans with a program existing in multiple years will only be counted once.*

DISEASE MANAGEMENT PROGRAMS (CONTINUED)

	Positive Outliers			
	1998	1999	2000	1998-2000
Arthritis	0%	0%	0%	0%
Cancer	0%	0%	0%	0%
Cardiac Rehabilitation	22%	22%	22%	22%
COPD/Asthma	33%	33%	33%	33%
Chronic Pain Mgmt	0%	0%	0%	0%
CHF	33%	33%	44%	44%
Depression	22%	44%	44%	44%
Diabetes	44%	56%	67%	78%
Hypertension	0%	0%	0%	0%
Lower Back Pain	0%	0%	0%	0%
Osteoporosis	0%	0%	0%	0%
Stroke Rehab	0%	0%	0%	0%
Other	22%	22%	22%	22%

	Average Plans			
	1998	1999	2000	1998-2000
Arthritis	0%	0%	0%	0%
Cancer	0%	0%	0%	0%
Cardiac Rehabilitation	0%	8%	8%	8%
COPD/Asthma	62%	62%	54%	69%
Chronic Pain Mgmt	0%	0%	0%	0%
CHF	54%	69%	77%	77%
Depression	31%	38%	38%	46%
Diabetes	54%	69%	62%	77%
Hypertension	15%	15%	15%	15%
Lower Back Pain	8%	8%	8%	8%
Osteoporosis	0%	0%	0%	0%
Stroke Rehab	0%	0%	0%	0%
Other	38%	46%	46%	46%

	Negative Outliers			
	1998	1999	2000	1998-2000
Arthritis	0%	0%	0%	0%
Cancer	14%	14%	14%	14%
Cardiac Rehabilitation	29%	29%	29%	29%
COPD/Asthma	43%	57%	43%	86%
Chronic Pain Mgmt	0%	0%	0%	0%
CHF	71%	86%	100%	100%
Depression	14%	14%	29%	29%
Diabetes	57%	57%	57%	71%
Hypertension	0%	0%	0%	0%
Lower Back Pain	0%	0%	0%	0%
Osteoporosis	0%	0%	14%	14%
Stroke Rehab	14%	14%	14%	14%
Other	29%	29%	29%	29%

OTHER BENEFICIARY PROGRAMS

	Positive Outliers			
	1998	***1999***	***2000***	***1998-2000****
Bereavement support	1	1	1	1
Depression screening	0	0	0	0
Fitness classes	2	2	2	2
Seniors social network	2	2	2	2
Stress management	2	2	2	2
Other	4	4	4	4
Bereavement support	11%	11%	11%	11%
Depression screening	0%	0%	0%	0%
Fitness classes	22%	22%	22%	22%
Seniors social network	22%	22%	22%	22%
Stress management	22%	22%	22%	22%
Other	44%	44%	44%	44%

	Average Plans			
	1998	***1999***	***2000***	***1998-2000****
Bereavement support	1	0	0	1
Depression screening	3	4	5	6
Fitness classes	4	2	2	5
Seniors social network	0	0	0	0
Stress management	0	1	1	1
Other	5	4	4	5
Bereavement support	8%	0%	0%	8%
Depression screening	23%	31%	38%	46%
Fitness classes	31%	15%	15%	38%
Seniors social network	0%	0%	0%	0%
Stress management	0%	8%	8%	8%
Other	38%	31%	31%	38%

	Negative Outliers			
	1998	***1999***	***2000***	***1998-2000****
Bereavement support	0	0	1	1
Depression screening	1	1	1	1
Fitness classes	5	4	3	5
Seniors social network	1	1	1	1
Stress management	4	4	2	4
Other	3	4	4	4
Bereavement support	0%	0%	14%	14%
Depression screening	14%	14%	14%	14%
Fitness classes	71%	57%	43%	71%
Seniors social network	14%	14%	14%	14%
Stress management	57%	57%	29%	57%
Other	43%	57%	57%	57%

**Plans with a program existing in multiple years will only be counted once.*

BEHAVIORAL HEALTH PRACTICE GUIDELINES/EDUCATIONAL MATERIALS

Depression	*Positive Outliers*			
	1998	*1999*	*2000*	*1998-2000**
Clinical practice guidelines	6	6	6	6
Conferences or courses for CME credits	0	1	1	1
Screening tools and scoring algorithms	2	2	3	3
Clinical practice guidelines	67%	67%	67%	67%
Conferences or courses for CME credits	0%	11%	11%	11%
Screening tools and scoring algorithms	22%	22%	33%	33%

Depression	*Average Plans*			
	1998	*1999*	*2000*	*1998-2000**
Clinical practice guidelines	8	9	12	12
Conferences or courses for CME credits	1	4	5	6
Screening tools and scoring algorithms	4	6	6	8
Clinical practice guidelines	62%	69%	92%	92%
Conferences or courses for CME credits	8%	31%	38%	46%
Screening tools and scoring algorithms	31%	46%	46%	62%

Depression	*Negative Outliers*			
	1998	*1999*	*2000*	*1998-2000**
Clinical practice guidelines	4	6	5	6
Conferences or courses for CME credits	0	1	2	2
Screening tools and scoring algorithms	0	2	4	4
Clinical practice guidelines	57%	86%	71%	86%
Conferences or courses for CME credits	0%	14%	29%	29%
Screening tools and scoring algorithms	0%	29%	57%	57%

**Plans with a program existing in multiple years will only be counted once.*

BEHAVIORAL HEALTH PRACTICE GUIDELINES/EDUCATIONAL MATERIALS (CONTINUED)

Substance Abuse	*Positive Outliers*			
	1998	*1999*	*2000*	*1998-2000**
Clinical practice guidelines	1	1	1	1
Conferences or courses for CME credits	0	0	0	0
Screening tools and scoring algorithms	0	0	1	1
Clinical practice guidelines	11%	11%	11%	11%
Conferences or courses for CME credits	0%	0%	0%	0%
Screening tools and scoring algorithms	0%	0%	11%	11%

Substance Abuse	*Average Plans*			
	1998	*1999*	*2000*	*1998-2000**
Clinical practice guidelines	4	5	5	5
Conferences or courses for CME credits	0	0	1	1
Screening tools and scoring algorithms	1	0	0	1
Clinical practice guidelines	31%	38%	38%	38%
Conferences or courses for CME credits	0%	0%	8%	8%
Screening tools and scoring algorithms	8%	0%	0%	8%

Substance Abuse	*Negative Outliers*			
	1998	*1999*	*2000*	*1998-2000**
Clinical practice guidelines	2	2	3	3
Conferences or courses for CME credits	0	0	0	0
Screening tools and scoring algorithms	0	1	0	1
Clinical practice guidelines	29%	29%	43%	43%
Conferences or courses for CME credits	0%	0%	0%	0%
Screening tools and scoring algorithms	0%	14%	0%	14%

**Plans with a program existing in multiple years will only be counted once.*

BEHAVIORAL HEALTH PRACTICE GUIDELINES/EDUCATIONAL MATERIALS (CONTINUED)

Other	*Positive Outliers*			
	1998	***1999***	***2000***	***1998-2000****
Clinical practice guidelines	4	4	5	5
Conferences or courses for CME credits	0	0	0	0
Screening tools and scoring algorithms	1	1	1	1
Clinical practice guidelines	44%	44%	56%	56%
Conferences or courses for CME credits	0%	0%	0%	0%
Screening tools and scoring algorithms	11%	11%	11%	11%

Other	*Average Plans*			
	1998	***1999***	***2000***	***1998-2000****
Clinical practice guidelines	2	5	5	6
Conferences or courses for CME credits	0	0	2	2
Screening tools and scoring algorithms	0	0	0	0
Clinical practice guidelines	15%	38%	38%	46%
Conferences or courses for CME credits	0%	0%	15%	15%
Screening tools and scoring algorithms	0%	0%	0%	0%

Other	*Negative Outliers*			
	1998	***1999***	***2000***	***1998-2000****
Clinical practice guidelines	4	4	5	5
Conferences or courses for CME credits	0	1	3	3
Screening tools and scoring algorithms	0	1	1	1
Clinical practice guidelines	57%	57%	71%	71%
Conferences or courses for CME credits	0%	14%	43%	43%
Screening tools and scoring algorithms	0%	14%	14%	14%

**Plans with a program existing in multiple years will only be counted once.*

BEHAVIORAL HEALTH EDUCATION AND OUTREACH ACTIVITIES

Behavioral Health Outreach Activities	*Positive Outliers*			
	1998	***1999***	***2000***	***1998-2000****
Mailings of newsletters and publications	6	5	4	7
Screening at local events	0	0	2	2
Other	1	2	2	2
Mailings of newsletters and publications	67%	56%	44%	78%
Screening at local events	0%	0%	22%	22%
Other	11%	22%	22%	22%

Behavioral Health Outreach Activities	*Average Plans*			
	1998	***1999***	***2000***	***1998-2000****
Mailings of newsletters and publications	4	8	8	8
Screening at local events	1	1	0	1
Other	2	3	4	4
Mailings of newsletters and publications	31%	62%	62%	62%
Screening at local events	8%	8%	0%	8%
Other	15%	23%	31%	31%

Behavioral Health Outreach Activities	*Negative Outliers*			
	1998	***1999***	***2000***	***1998-2000****
Mailings of newsletters and publications	3	6	5	6
Screening at local events	0	0	0	0
Other	2	2	3	3
Mailings of newsletters and publications	43%	86%	71%	86%
Screening at local events	0%	0%	0%	0%
Other	29%	29%	43%	43%

**Plans with a program existing in multiple years will only be counted once.*

BEHAVIORAL HEALTH EDUCATION AND OUTREACH ACTIVITIES (CONTINUED)

Outreach Topics	*Positive Outliers*			
	1998	*1999*	*2000*	*1998-2000**
Basic facts on BH	4	4	4	4
BH treatment options	0	0	0	0
Coping with grief and loss	1	1	1	1
How to talk to MD about depression	0	1	1	1
Substance abuse	0	0	0	0
Other	1	1	1	1
Basic facts on BH	44%	44%	44%	44%
BH treatment options	0%	0%	0%	0%
Coping with grief and loss	11%	11%	11%	11%
How to talk to MD about depression	0%	11%	11%	11%
Substance abuse	0%	0%	0%	0%
Other	11%	11%	11%	11%

Outreach Topics	*Average Plans*			
	1998	*1999*	*2000*	*1998-2000**
Basic facts on BH	3	6	6	6
BH treatment options	1	4	4	4
Coping with grief and loss	0	1	2	2
How to talk to MD about depression	2	2	2	4
Substance abuse	2	3	2	4
Other	1	2	4	4
Basic facts on BH	23%	46%	46%	46%
BH treatment options	8%	31%	31%	31%
Coping with grief and loss	0%	8%	15%	15%
How to talk to MD about depression	15%	15%	15%	31%
Substance abuse	15%	23%	15%	31%
Other	8%	15%	31%	31%

Outreach Topics	*Negative Outliers*			
	1998	*1999*	*2000*	*1998-2000**
Basic facts on BH	5	5	5	5
BH treatment options	4	4	5	5
Coping with grief and loss	1	2	2	2
How to talk to MD about depression	2	1	2	3
Substance abuse	0	1	0	1
Other	1	2	1	3
Basic facts on BH	71%	71%	71%	71%
BH treatment options	57%	57%	71%	71%
Coping with grief and loss	14%	29%	29%	29%
How to talk to MD about depression	29%	14%	29%	43%
Substance abuse	0%	14%	0%	14%
Other	14%	29%	14%	43%

*Plans with a program existing in multiple years will only be counted once.

BENEFITS AND COVERAGE

Benefits and Coverage	*Positive Outliers*		
	1998	***1999***	***2000***
MH Copays	8	8	8
Avg MH Copay	$13	$10	$11
MH Lifetime Limit	6	7	7
Avg Lifetime Limit	190 days	190 days	190 days
Limit on Annual MH Visits	0	0	0
Avg Limit on MH Visit	0 visits	0 visits	0 visits
Rx Benefit	8	8	8
Rx Deductible	2	2	2
Average RX Deductible	$250	$250	$250
Rx Copay	7	6	6
Avg Generic Copay	$7	$7	$7
Avg Formulary Copay	$10	$11	$30
Avg Non-Formulary Copay	$30	$29	$30
Rx Coinsurance	2	2	2
Avg Coinsurance %	50%	50%	50%
Annual Rx Limit	6	5	6
Average RX Annual Limit	$1,583	$1,800	$1,700
MH Meds in Formulary	8	8	8
Self-Referral to MH Providers	4	4	4

Benefits and Coverage	*Average Plans*		
	1998	***1999***	***2000***
MH Copays	12	11	11
Avg MH Copay	$16	$16	$16
MH Lifetime Limit	5	5	5
Avg Lifetime Limit	190 days	190 days	190 days
Limit on Annual MH Visits	1	1	1
Avg Limit on MH Visit	0 visits	0 visits	0 visits
Rx Benefit	10	9	9
Rx Deductible	0	0	0
Average RX Deductible	$0	$0	$0
Rx Copay	11	10	9
Avg Generic Copay	$8	$6	$8
Avg Formulary Copay	$13	$14	$18
Avg Non-Formulary Copay	$21	$21	$31
Rx Coinsurance	1	1	2
Avg Coinsurance %	50%	50%	50%
Annual Rx Limit	10	9	10
Average RX Annual Limit	$713	$106	$580
MH Meds in Formulary	9	9	9
Self-Referral to MH Providers	7	7	7

BENEFITS & COVERAGE (CONTINUED)

Benefits and Coverage	*Negative Outliers - Averages*		
	1998	***1999***	***2000***
MH Copays	6	7	7
Avg MH Copay	$12	$13	$16
MH Lifetime Limit	5	5	5
Avg Lifetime Limit	190 days	190 days	190 days
Limit on Annual MH Visits	1	1	1
Avg Limit on MH Visit	20 visits	20 visits	60 visits
Rx Benefit	6	6	6
Rx Deductible	0	0	0
Average RX Deductible	$0	$0	$0
Rx Copay	6	6	5
Avg Generic Copay	$6	$7	$7
Avg Formulary Copay	$12	$16	$20
Avg Non-Formulary Copay	$15	$15	$37
Rx Coinsurance	0	0	0
Avg Coinsurance %	0%	0%	0%
Annual Rx Limit	6	6	5
Average RX Annual Limit	$1,080	$1,230	$1,444
MH Meds in Formulary	4	4	4
Self-Referral to MH Providers	4	4	4