

## POSTER ABSTRACTS

11<sup>th</sup> Annual HMO Research Network Conference

April 4-6, 2005 Santa Fe, NM

### Chronic Disease 17

#### **Sensitivity and Specificity of a Self-report Instrument to Measure Comorbidity Relative to Chart Review**

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**Background:** In order to investigate processes of care for persons with multiple chronic medical conditions, it is necessary to collect information on level of comorbidity and adjust for this in analyses. For certain study designs and outcome measures, this information is best collected via self-report. We report on the development and initial validation of a self-report instrument designed to assess a broad range of chronic medical conditions.

**Methods:** 156 HMO members age 65 or older were asked to indicate which of a list of 21 medical conditions they had and how much the condition(s) limited their daily activity. We subsequently reviewed their charts to assess agreement with self-reported numbers and types of conditions. Sensitivities and specificities were calculated from two perspectives. First, for each listed condition (e.g., high blood pressure), sensitivity was defined as the proportion of patients who correctly reported having the condition, and specificity as the proportion of patients who correctly reported not having the condition, relative to chart review. Second, on a patient-specific basis, sensitivity and specificity were calculated for the number of the conditions that the patient agreed with the chart that s/he did or did not have.

**Results:** 151 patients reported at least one of the conditions. In analyses by condition, median sensitivity of patient report of condition relative to chart review was 78% (range 41% to 100%) and median specificity was 92% (range 60% to 100%). Sensitivity was highest (100%) for poor circulation and asthma; specificities were 100% and 99% for cancer and rheumatic disease, respectively. In analyses by patient, sensitivities (agreement on number of conditions positive relative to chart review) ranged from 0% to 100%; the median was 83%. Specificities ranged from 53% to 100% with a median of 89%.

**Conclusion:** In this study population, patients with multiple chronic medical conditions accurately report presence of a majority of common comorbid conditions. In addition, persons with multiple chronic medical conditions are aware of a majority of their diagnoses. For study designs in which self-report is the preferred method of data collection on comorbidities, self-report appears to be a valid method of quantifying comorbid conditions.