three of four drugs, which differed in prevalence and severity of the particular disease, incremental benefit of the drug, and cost utility. The "committees" first evaluated all information provided and then re-numbered the four drugs. For each indication, the patient was offered all four drugs, starting with the patient submission. Each group used three of four "group discussion" methods (open discussion, nominal group technique, deliberative dialogue, and multiple attribute rating technique) to reach consensus on funding recommendations, with the results that the drugs could be approved, or rejected, or with quantitive and qualitative responses were analyzed. All participants felt that patient submissions added significantly to understanding the value of the drugs to patients. The most important factor was impact on disease, its severity, the availability of other treatment options, and risks/benefits. The multiple attribute rating technique was the most preferred and had the most influence on achieving group consensus. Finally, groups comprised of patient representatives behaved very similarly to groups of non-patient representatives. CONCLUSIONS: This pilot study has shown that it is possible to achieve consensus on drug submissions, and that the patient representation was very similar. The patient representation comprised solely of patient representatives or solely of non-patient representatives.

### PHP3

### VALUE-BASED DESIGN AND PRESCRIBING PATTERNS

Thomson Reuters, Ann Arbor, MI, USA, Florida Health Care Coalition, Orlando, FL, USA, Michigan 2, Inc., Whitehouse Station, NJ, USA, University of Michigan, Ann Arbor, MI, USA

**OBJECTIVES:** A value-based pharmacy access program lowering brand name payer cost-sharing was implemented by a large manufacturer. Whether this cost-sharing decrease also affected utilization of generic medications and insulin is also important for the design of future programs. The aim of this study is to measure the effects of the program on utilization patterns of insulin and to determine whether generic antidiabetic medications appear to be a complement or substitute.

**METHODS:** A total of 1876 adult enrollees received the value-based benefit along with their diabetes management program. Enrollees were matched one-to-one using propensity score matching to a comparison group of enrollees in the same firm with disease management and without the value-based benefit. A cross-sectional, time series analysis was conducted with enrollees as the cross-sectional unit and calendar quarters from 2005 through 2008 the unit of time. We measured the medication possession ratio and user rates for each of the medication classes and estimated multivariate models controlling for covariates.

**RESULTS:** The estimated effects of the value-based program on user rates for brand name oral medications were 2.7, 4.5, and 6.2 percentage points higher (than without the value-based program) in the first, second, and third years of program implementation, respectively (all p<0.01). For generic medications, the effects on user rates rose in a complementary fashion and were 4.2, 4.7 and 5.3 percentage points higher in years 1, 2 and 3, respectively (all p<0.01). For insulin, the effects on user rates were no different in the first year, but were higher in the second and third years (both p<0.01), suggesting that lowered cost-sharing may improve the appropriate prescribing of diabetes medications, allowing for treatment decisions that are more patient-centric and less cost-dependent.

### PHP4

### HEALTH LITERACY AND ITS IMPACT ON NATIONAL HEALTH CARE UTILIZATION

Ashor Bawa W, Rasu R

Florida Health Care Coalition, Orlando, FL, USA

**OBJECTIVES:** Patient’s low health literacy (HLL) continues to be a vital obstacle to health care delivery and quality outcomes. The impact of HLL on national health care utilization remains mostly unaddressed without knowing national health literacy level (HLL). Therefore the study aims to evaluate the impact of HLL on health care utilization. **METHODS:** Study used Medical Expenditure Panel Survey (MEPS), a nationally representative panel survey data from 2005-2008. Health literacy scores (HLS) were estimated based on a proven predictive model using demographic and socioeconomic variables and rated according to National Assessment of Adult Literacy (NAAL). HLL ranged from 0 categorized as below basic (HLL<226) to proficient HLL (HLL=226). Health care utilization variables (office visits, emergency room visits, and expenditures) were analyzed separately in evaluating their relationship to HLL. Visits were modeled using a weighted negative binomial regression, while expenditures were modeled using linear regression. National estimates on individuals were estimated using weights provided by MEPS. Weighted multivariate logistic model was used to determine factors affecting HLL.

**RESULTS:** Total 503,374,648 weighted individuals (mean age, 48.7±8.03, 186.18) were from study across 36.8% females (56.6%), Caucasian (83%), and married (56%). Estimated national mean of HLL was 223.5 (SE=0.34). Individuals with below basic HLL (>226) significantly (p-value <0.001) increasing office-based visits ≥0.60 (SE=0.018), physician office visits ≥0.77 (SE=0.018), ER visits ≥0.048 (SE=0.001), office-based total expenditures ≥$534 (SE=4.0), and total prescription expenditures ≥$510 (SE=9.5) compared to proficient HLL (≤226) group. National estimated value for RxMed spent was $485,753,690,160/year. Logistic model reported individuals with higher income were 19 times more likely to report above basic HLL as compared to poor/near-poor (OR=18.997, CI=16.29–22.15). **CONCLUSIONS:** Study identifies that HLL affects health care utilization. Consumers with proficient HLL incur fewer visits (office-based, physician, and ER) and spend less on RxMeds. Warranting the opportunity to save billions of national health care costs by increasing HLL.