constituents through August 1, 2007, of which evidence from 27 were extracted using our criteria. Stakeholder comments on the HTA process and decision methodology were distilled into 12 categories, ranging from impact of severity/rarity of disease on acceptability of cost-effectiveness thresholds to over-reliance of QALYs in decision-making. Compared to attributes reported for other countries, NICE's criteria and methods for health economic assessment and decision-making varied substantially, such as that of the model perspective, e.g., payer versus societal. CONCLUSION: We found that aspects of NICE technology appraisals garner criticism common to many stakeholders. This underscores the need to reconsider how current health economic and decision methodology might be improved. Furthermore, country-level heterogeneity in HTA processes and methods suggests the need to determine why these variations arise, and whether they reflect societal preferences or misunderstandings of appropriate methods.

**PHP17**

**HOW MANDATORY PRICE REDUCTION OF REIMBURSED PHARMACEUTICALS COULD RESULT IN INCREASED PHARMACEUTICAL EXPENDITURE?**

Bacsik M1, Komaromi T1, Nagy B1, Kaló Z2

1Healthcare Consulting Ltd, Budapest, Hungary, 2Eotvos Lorand University, Budapest, Hungary

**OBJECTIVE:** Political objectives may alter economic rationale in health care decision-making. The Hungarian government had promised to reduce the prices and copayment of pharmaceuticals, therefore 15% price cut was mandated to all reimbursed pharmaceuticals from April 2004. Three months later the regulation was abrogated by the Constitution Court. As the government did not want to communicate a price increase, the level of copayment remained the same, while the reimbursement level was increased. It took two years to increase the copayment back to the original level by a 7.5% reimbursement reduction in February 2005, and by a further 7.5% reduction from February 2005 to July 2006. Our objective was to measure the impact of price cut on the public pharmaceutical budget. METHODS: An estimated public pharmaceutical spending was calculated based upon projections from the expenditure in previous periods. Only pharmaceuticals with reimbursement in April 2004 were included into the analysis. The estimated expenditure was compared to the real expenditure. Hungarian Forint was converted to US$ by employing the quarterly exchange rate. RESULTS: In Q2 2004 the mandated price cut resulted in $39.65 million savings in the pharmaceutical expenditure. In Q3-Q4 2004 the reduced copayment generated $29.98 million increase in the drug budget. Between Q1 2005 and Q2 2006 the impact of reduced copayment was $42.42 million. CONCLUSION: The mandated price cut and its subsequent abrogation resulted in $32.75 million increase in the Hungarian public pharmaceutical expenditure between April 2004 and June 2006, as the government did not dare to withdraw its promise on cheaper pharmaceuticals. Our estimate is conservative, as the mandated price cut influenced spending not only on pharmaceuticals with reimbursement in April 2004, but via reference pricing also the spending on new pharmaceuticals with initial reimbursement between April 2004 and June 2006.

**WITHDRAWN**

**PHP18**

**PHP19**

**EFFECT OF PRESCRIPTION DRUG COVERAGE ON HEALTH AMONG CHRONICALLY ILL ELDERLY POPULATION**

Khan N1, Kaestner R2

1University of New Mexico, Albuquerque, NM, USA, 2University of Illinois at Chicago, Chicago, IL, USA

**OBJECTIVE:** To estimate the effect of prescription drug insurance on health, as measured by self-reported poor health status, functional disability, and hospitalization among elderly with at least three chronic conditions. METHODS: Analyses are based on a nationally representative sample of non-institutionalized elderly (>64 years of age) from the Medicare Current Beneficiary Survey (MCBS) for years 1992–2000. Estimates are obtained using multivariable regression models that control for observed characteristics and unmeasured person-specific effects (i.e., fixed effects). Fixed effects analysis uses within person variation in drug coverage to estimate the effect of gaining or losing coverage on outcome of interest (i.e., health). RESULTS: In general, prescription drug insurance was not associated with significant changes in self-reported health, and hospitalization. However, prescription drug coverage decreased functional disability slightly (4% improvement), although this was not statistically significant. CONCLUSION: Findings suggest that prescription drug coverage may have some health benefits for chronically ill.

**PHP20**

**PREDICTORS OF ENROLLMENT IN MEDICARE PART D: THE EXPERIENCE OF MEDICARE DRUG DEMONSTRATION PARTICIPANTS WITH RHEUMATOID ARTHRITIS AND MULTIPLE SCLEROSIS**

Polinski JM1, Mohr PE2, Johnson L2

1Brigham and Women’s Hospital, Boston, MA, USA, 2Centers for Medicare and Medicaid Services, Baltimore, MD, USA

**OBJECTIVE:** During the 16 months preceding the start of the Medicare prescription drug program (Part D), 22,359 vulnerable Medicare beneficiaries with rheumatoid arthritis (RA) or multiple sclerosis (MS) participated in the Medicare Replacement Drug Demonstration (MRDD), which provided access to specialty biologic medications. We examine beneficiary characteristics associated with Part D enrollment among this population in early 2006. METHODS: Predictors in multivariate logistic regressions included female gender, age, race (white, black, or other), region of the U.S., urban residence, Hierarchical Condition Category score (HCC; a measure of comorbidity), use of the MRDD benefit, subsidy level under the MRDD, self-report of other drug coverage during the MRDD, and death within six months of the start of Part D. RESULTS: Among 14,963 MRDD beneficiaries with RA, 12,174 (81%) enrolled in Part D plans during the first half of 2006. Ninety percent (6646) of the 7396 beneficiaries with MS enrolled in Part D plans—about 50% higher than the rate of enrollment in the general Medicare population. Female gender (OR = 1.5, 1.3–1.6), MRDD benefit use (OR = 2.6, 2.4–2.8), higher HCC score (OR = 1.07, 1.03–1.10), other drug coverage during the MRDD (OR = 1.6, 1.5–1.7), were associated with Part D enrollment. There were regional differences as well. Older age (OR = 0.9, 0.9–0.9) and death within 6 months (OR = 0.3, 0.3–0.4) were associated with not enrolling in Part D. Separate regressions for the RA and MS populations produced similar results. CONCLUSION: With the inception of Medicare Part D, most MRDD beneficiaries with RA and MS enrolled in Part D plans. Beneficiaries who had used their MRDD benefit and had worse health status—those who appear to need prescription drug coverage most—were more likely to enroll. Disproportionately high enrollment suggests that
the Medicare prescription drug program provided this vulnerable population with an important new source of drug coverage.

**PHP21**

**CLINICALLY SIGNIFICANT DRUG-DRUG INTERACTION PROFILES IN THE ELDERLY—A CALIFORNIA QUALITY IMPROVEMENT ORGANIZATION (QIO) COLLABORATIVE EXPERIENCE**

Kwok P, Nuñez S, Sabogal F
Lumetra, San Francisco, CA, USA

**OBJECTIVE:** Drug-drug interactions (DDI) have been well associated with significant medical, safety, and economic consequences, particularly in older and chronically ill patients. This study examined several aspects of medication safety by quantifying and profiling the prevalence, population exposure, and characteristics of clinically significant DDIs among Medicare Part D utilizing beneficiaries, Lumetra and six California Medicare Advantage prescription drug plans (MAPD) and stand-alone prescription drug plans (PDP) that will collaboratively utilize results to design effective quality improvement initiatives to minimize adverse clinical outcomes due to these DDIs. **METHODS:** This study assessed the prevalence and population exposure of DDIs among Medicare and dual eligible (i.e., Medicare +Medicaid status) beneficiaries enrolled across six of California’s Part D MAPD and PDPs. Retrospective, cross sectional pharmacy claims data from January 1, 2006 through December 31, 2006 were analyzed to obtain the frequency of drug interactions that are clinically significant and well-documented in the medical and pharmacy literature. **RESULTS:** The analysis included 368,607 utilizing beneficiaries. The overall prevalence rate of DDI was 5.9%. The number of clinically significant DDI cases was 7962 per 100,000 beneficiaries. Stratified analyses indicated that males and older beneficiaries appear to be at a higher risk of incurring a clinically significant DDI. Risk of a DDI also increased as the number of unique medications and/or number of prescribing physicians increased per enrollee. **CONCLUSION:** The prevalence and characteristics of clinically significant DDIs among California elderly and chronically ill patients were positively associated with certain demographic factors and health care resource utilization profiles. Stratifying high-risk individuals with discrete or multiple DDI’s will enable Part D MAPD and PDPs to perform in-depth case management in targeted individuals. Point-of-service edits and information obtained from retrospective drug claims review can be used in conjunction to customize meaningful intervention strategies.

**PHP22**

**MEDICARE SPENDING GROWTH FOR DIAGNOSTIC IMAGING AND ACCESS TO CARE**

Lee DW
GE Healthcare, Waukesha, WI, USA

**OBJECTIVE:** To measure the impact of improvements in access to care on Medicare spending growth for diagnostic imaging (DI) services. **METHODS:** We modeled Medicare DI spending growth as a function of growth in: enrollment; per-service payment; access to care (% using ≥1 service); volume (services/user); and intensity (relative value units per service used). We then used Medicare Standard Analytic File 5% sample data from 2002–2005 to decompose DI spending growth into these factors by modality: standard (x-ray and ultrasound); and advanced (computed tomography (CT), magnetic resonance (MR) and nuclear). **RESULTS:** Aggregate DI service spending grew at an annual rate of 15.2% during 2002–2005, and varied substantially by modality (x-ray 10.2%, ultrasound 11.7%, CT 19.6%, MR 18.5%, nuclear 15.0%). Enrollment growth accounted for less than 15% of this increase (range: 7.2% (CT)–13.3% (x-ray)), while the impact of payment increases was far greater and varied widely (range: 7.6% (nuclear)–54.0% (x-ray)). The share of DI spending growth attributable to improvements in access to care was: x-ray (6.5%); ultrasound (19.1%); CT (30.4%); MR (49.0%); and nuclear (30.5%). The contribution of volume growth to overall spending growth ranged from 10.5% for MR to 24.1% for CT. Service intensity growth accounted for less than 10% of spending growth for x-ray, CT and MR; 17.9% and 33.0% of spending growth for ultrasound and nuclear were due to service intensity growth, respectively. **CONCLUSION:** Improved access to care explains approximately 30%–50% of the growth in Medicare spending for advanced diagnostic imaging services.

**PHP23**

**SPECIALTY BIOLOGIC DRUG COVERAGE UNDER MEDICARE PART D: THE EXPERIENCE OF VULNERABLE BENEFICIARIES WITH RHEUMATOID ARTHRITIS (RA) AND MULTIPLE SCLEROSIS (MS)**

Polinski JM, Mohr PE, Johnson L
1B Brigham and Women’s Hospital, Boston, MA, USA; 2Centers for Medicare and Medicaid Services, Baltimore, MD, USA

**OBJECTIVE:** In early 2006, 18,820 vulnerable Medicare beneficiaries with RA or MS participating in a biologic drug demonstration program (MRDD) transitioned into Medicare Part D plans. We compared the types of biologic drug coverage offered by Part D plans. **METHODS:** We examined Part D plans’ cost structure (e.g. premium, deductible, cost sharing) for the specialty biologic drugs offered during the MRDD: adalimumab, etanercept, anakinra (for RA), interferon beta 1a and 1b, glatiramer acetate, and HP acthar gel (for MS). For MRDD and Part D plans, we compared beneficiaries’ average out-of-pocket costs (OOPC). **RESULTS:** Beneficiaries enrolled in 1061 stand-alone (SA) and 705 Medicare Advantage (MA) Part D plans. All SA plans and all but one MA plan covered etanercept, interferon beta 1h, and glatiramer acetate. The proportion covering the other drugs varied between 38–92%. MA plans were more likely to cover anakinra, interferon beta 1a, and HP acthar gel than SA plans (p < 0.05). All plans used co-insurance as the preferred form of cost sharing; average co-insurance ranged from 25–31% of the drug price. The majority of plans assumed >75% of the cost sharing for each drug dispensing during the initial coverage period, but only 2% of plans offered coverage during the coverage gap. On average, beneficiaries’ OOPC were greater under Part D than the standard benefit-structured MRDD. Patients with a MRDD subsidy were significantly less likely to receive a Part D subsidy (p < 0.0001), because assets were considered in addition to income in the granting of subsidies under Part D. **CONCLUSION:** Many Part D plans assume some costs for specialty biologic drugs to treat RA and MS. Benefits still find themselves facing high OOPC due to drug price, plans’ preference for co-insurance, and scant coverage during the coverage gap.

**PHP24**

**THE IMPACT OF BENEFIT PLAN DESIGN ON COST AND HEALTH OUTCOMES**

Chin W, Bennett C, Jorch U
1Ilex Consulting, Toronto, ON, Canada; 2H3 Consulting, Toronto, ON, Canada; 3Jorch Consulting, Toronto, ON, Canada

**OBJECTIVE:** When private payers implement changes to control health benefit costs, the longer term consequences may not be considered. The aim was to identify scientific studies that exam-