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**

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**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) 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 +Medi-aid 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 MAPDs 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**

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**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)**

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**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. Beneficiaries 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**

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**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-