cans (54%) (p < 0.05). Similarly, in patients with asthma, we found that African American patients were 65% less likely to have the recommended medication possession rate of at least 80% [RR: 0.35, 95% CI: 0.15–0.81]. There were no significant patient differentials in controller medication adherence by race in patients with psoriasis.

**PHP20**

**IMPACT OF POLYPHARMACY MEDICATION THERAPY MANAGEMENT PROGRAM (MTMP) ON DRUG EXPENDITURES IN MEDICARE PART D POPULATION**

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**OBJECTIVES:** To assess the impact of polypharmacy intervention on drug cost in the Medicare Part D population.

**METHODS:** This is a case-control study, based on 2006 Medicare Part D population. The case group contains cases which have received Polypharmacy interventions, whereas the control group contains cases which have not been intervened upon. Per member per month (PMPM) drug savings were calculated as the difference between the projected post-intervention drug cost of the case group and the actual post-intervention drug cost of the case group. The projected post-intervention drug cost is based on the pre-post intervention percent change in the PMPM drug cost of the control group.

**RESULTS:** There were 6050 Polypharmacy cases, of which 3442 were intervened on. The remainder served as the control group. The actual post-intervention PMPM drug cost for the case group was $611 and the projected post-intervention PMPM drug cost for the same group was $663, a difference of $52, representing $52 PMPM drug cost savings.

**CONCLUSION:** Polypharmacy MTMP may not only help improve therapeutic outcomes through improved medication use, but may also reduce overall health cost. The present study showed significant pharmacy savings as a result of Polypharmacy intervention. This study did not address medical cost savings due to the lack of longitudinal medical claim data. However, it would not be unreasonable to assume Polypharmacy intervention could significantly reduce medical cost.

**PHP21**

**DETERMINANTS OF STATE MEDICAID PER CAPITA PRESCRIPTION DRUG EXPENDITURES: A STRUCTURE EQUATION MODELING APPROACH**

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**OBJECTIVES:** State Medicaid programs vary drastically in their prescription drug expenditure per recipient. Prior research has attempted to explain these variations by identifying potential determinants of drug expenditure. However, analyses in the past have been restricted to a few variables and several other potential determinants and their interactions have not been investigated. Objectives of this study were: a) To identify potential determinants of Medicaid per capita drug expenditures based on an established comprehensive model for health services utilization; and b) to test impacts of the identified determinants on per capita drug expenditures.

**METHODS:** This study employs Andersen’s Behavior Model of Health Services Utilization to identify potential determinants of pharmaceutical expenditures in state Medicaid programs using publicly available data. A structure equation model was built to test relationships among the latent constructs of policy, access, predisposing characteristics, enabling resources, and need for health care, and their influence on drug utilization.

**RESULTS:** “Predisposing characteristics” were found to significantly impact drug utilization. Among the observed variables, “access to hospitals” and “access to primary care physicians” significantly described “health care resources”; “risk of diseases” described “need for health care”; and “poverty” described the latent construct of “enabling resources.” The “policy” construct was not described adequately by the indicator variables. **CONCLUSION:** Based on the study results, we conclude that Medicaid policy and program interventions, as described in this model, do not influence drug costs significantly. Population characteristics like predispositions and enabling resources determine drug costs in the state Medicaid programs.

**PHP22**

**HEALTH REIMBURSEMENT ACCOUNT BASED CONSUMER DRIVEN HEALTH PLANS: THEIR IMPACT ON MEDICAL UTILIZATION, PHARMACY UTILIZATION AND EXPENDITURES**

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**OBJECTIVES:** To examine the impact of consumer driven health plans (CDHPs) on pharmacy and medical utilization, health care and pharmacy expenditures.

**METHODS:** We utilized enrollment, medical and pharmacy claims data from a national employer who switched from offering a traditional PPO based plan (i.e., the “pre” period in 2004) to only offering CDHP options to their employees in 2005 (i.e., the “post” period). Patients with select chronic diseases including diabetes and asthma were included for analyses. Outcomes measured included total number of prescriptions, disease based medication adherence (estimated by the Medication Possession Ratio (MPR) with 80% or higher classified as being “adherent”), ER, inpatient and outpatient visits and pharmacy and health care expenditures.

**RESULTS:** Preliminary results show that for CDHP switchers there was a reduction in most measures: outpatient visits reduced by 22%, total number of prescriptions decreased by 25%, medical and pharmacy expenditures reduced by 22% and 24% respectively. Individuals were 37% less likely to be adherent with their drug therapy across all disease states in a CDHP compared to their adherence in a PPO plan. There were no appreciable differences in ER and inpatient visits. **CONCLUSION:** Switching to a CDHP resulted in lower utilization of some services and expenditures. Switching was also associated with decrease influenced by CDHP benefit design. CDHPs can be a useful plan offering but plans should design interventions to improve medication adherence.

**PHP23**

**A NATIONAL SURVEY ON PRESCRIBERS’ KNOWLEDGE OF AND THEIR SOURCE OF DRUG-DRUG INTERACTION INFORMATION**

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OBJECTIVES: To assess prescribers’ ability to recognize clinically significant DDIs, to examine how DDIs are identified, and to evaluate this information source from the prescribers’ perspective. METHODS: A postal questionnaire was developed to assess prescribers’ knowledge of interacting medications. Prescribers were asked to classify 14 drug pairs as “contraindicated”, “may be used together but with monitoring”, or “no interaction”. An option of “not sure” was provided. The questionnaires were sent to a national sample of prescribers based on their past history of DDI prescribing which was determined using data from a PBM covering over 50 million lives. RESULTS: Completed questionnaires were obtained from 950 prescribers, giving an overall response rate of 7.9%. The number of drug pairs correctly classified by the prescribers ranged from zero to thirteen, with a mean of 6 pairs correctly classified (42.7%). The percentages of prescribers who correctly classified specific drug pairs ranged from 18.2% for warfarin-cimetidine to 81.2% for acetylsalicylic acid and codeine-amoxicillin. Half of the drug pair questions were answered “not sure” by over one-third of the respondents; among which, two were contraindicated. One-fourth of the prescribers reported using PDAs to learn more about a DDI, and another one-fourth used printed materials. A total of 68.4% of the prescribers reported that they were usually informed by pharmacists about their patients’ potential exposure to DDIs. Compared to the prescribers who used other sources, those who used computerized DDI alerts as their usual DDI information source consistently gave a lower rating score to the five statements that assessed the usefulness of the information. CONCLUSION: This study suggests that prescribers’ DDI knowledge is insufficient. Physicians mostly commonly learn about interactions involving their patients from the pharmacy, suggesting further work is needed to improve the drug prescribing process to identify potential safety issues earlier in the medication use process.

PHP24
COMPARING MEDICATION ADHERENCE AND WASTAGE AMONG THREE DIFFERENT RETAIL PROGRAMS
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OBJECTIVES: To compare adherence and wastage among 30-day retail program, mandatory 90-day retail program and voluntary 90-day retail program. METHODS: This analysis was conducted using pharmacy claims data from a pharmacy benefit manager (PBM). Patients who were new to either Ace-Inhibitor, statin or SSRIs in March-May 2005 were identified and followed-up for a period of 12-month to measure adherence and wastage. Patients had retail 30-day supply only during the study period were included in 30-day retail program, patients had mandatory 90-day supply during the study period were in mandatory 90-day retail program, and similarly, patients had voluntary 90-day supply were in voluntary 90-day retail program. Adherence was assessed in terms of Medication Possession Ratio (MPR). Medication wastage occurred either when patients switched to different medication within the same class or to similar medication having different strength and that the patient’s actual day’s supply was less than dispensed day’s supply. Medication wastage was measured by the total day’s supply wasted among a normalized 30-day period. RESULTS: About 955 patients in 30-day retail program, 148 patients in mandatory 90-day retail program, and 582 patients in voluntary 90-day retail program. Adherence was found to be significantly greater in mandatory 90-day (MPR = 0.7543) and voluntary 90-day retail program (MPR = 0.6895) when compared to 30-day retail program (MPR = 0.3999) (P < 0.01). Although medication wastage was found to be relatively higher in mandatory 90-day retail program (2.5 days/30-day-period), followed by retail 30 program (2.3 days/30-day-period) and voluntary 90-day retail program (2.2 days/30-day-period), these comparisons were not significant (P > 0.05). CONCLUSION: Adherence was reported to be significantly better for mandatory 90-day retail program and voluntary 90-day retail program than 30-day retail program; while medication wastage showed comparable results across the three programs. This study showed that 90-day supply policies tend to improve the medication compliance without increasing the medication wastage.

PHP25
TRENDS IN OUT OF POCKET COST BURDEN FOR PATIENTS WITH CHRONIC CONDITIONS
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OBJECTIVES: Recently, coinsurance has become a common cost-sharing feature of benefit plans. The objectives were to study annual trends in out-of-pocket expenditures (OOP) and compare OOP for patients with chronic conditions with and without benefit plans requiring coinsurance. METHODS: Inpatient, outpatient, and prescription utilization and expenditure data from 2002 through 2004 were obtained from the Medstat commercial claims database. Benefit design information was available for 5.9 million adults with claims. Adult patients eligible for both medical and drug coverage with at least one inpatient or two outpatient diagnoses of chronic kidney disease (CKD), multiple sclerosis (MS), rheumatoid arthritis (RA), or diabetes were selected. Total OOP were calculated by summing copayments, coinsurance and deductibles for all pharmacy and medical claims. Annualized OOP for patients whose benefit plans required medical and/or pharmacy coinsurance inside the network were compared with patients whose plans did not have any coinsurance requirements. RESULTS: Total of 32,513 patients with no-coinsurance and 293,907 with co-insurance met all other selection criteria. Average OOP for patients in co-insurance plans were two to three times greater than those for patients not in co-insurance plans. During the period from 2002–2004, average OOP for the sum of outpatient services, drugs and inpatient visits was higher for patients in plans with in-network coinsurance compared with patients in plans with no coinsurance: CKD ($2022 vs. $759, P < 0.0001), MS ($1856 vs. $692, P < 0.0001), RA ($1586 vs. $616, P < 0.0001), diabetes ($1384 vs. $532, P < 0.0001). CONCLUSION: Out-of-pocket expenses are much higher for patients with insurance plans requiring payment of coinsurance. The trend toward coinsurance requirements may limit health care affordability for many patients with serious and chronic conditions.

PHP26
MORE POLICY INITIATIVES IN THE AUSTRALIAN NATIONAL REIMBURSEMENT SYSTEM THAT WILL REDUCED COSTS DRAMATICALLY
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OBJECTIVES: In the past few years a range of policy initiatives has been introduced into the Australian national reimbursement system. Prior to these initiatives the Australian Government published its “Intergenerational report” which was used to support the argument that the growth in health, and in particular pharmaceutical, spending would create a fiscal crisis over the next 40-years. In late 2006, after extensive negotiation with industry, a raft of policies where announced which detailed substantial