medication, 13% switched medication, 10% both delayed and stopped medication while 9% of members both switched and delayed medication. The data show people who experienced the doughnut hole are 1.3 times more likely to switch, 2 times more likely to delay, 3 times more likely to switch and delay, and 4.7 times more likely to switch and stop their prescription medications. CONCLUSIONS: The results of the study suggest that the doughnut hole is a factor in alteration of prescription fulfillment decisions by Part D members. Because patient non-compliance of medications may result in mortality it is important that the Medicare Part D standard prescription drug plan be designed to limit excessive financial burden to members based on spending levels.

PH449 HORMONE REPLACEMENT THERAPY, AN ANALYSIS FOCUSING ON DRUG CLAIMS BY FEMALE SENIORS 2000 TO 2007 Gauchler M; Hunt J

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OBJECTIVES: This analysis was intended to identify trends in Hormone Replacement Therapy (HRT) use in female seniors on public drug programs in 3 Canadian provinces between 2001–2002 and 2006–2007. METHODS: Claims level data were analyzed for female seniors on public drug programs in Alberta, Saskatchewan, Manitoba, New Brunswick and Nova Scotia. The analysis covered the calculation of the proportion of female seniors on these programs using HRT, and also examined trends in dosage and type of therapy used. RESULTS: The rate of HRT use among female seniors in the 3 provinces dropped from 13.9% in 2001–2002 to 5.2% in 2006–2007. The decline of this HRT use (24.9% per year) was greater in the designated estrogen only HRT use (14.7% per year). The vast majority of female seniors still using HRT in 2006–2007 were on estrogen-only regimens (84%). Of women using the higher (0.625 mg) dose in 2001–2002 and still using HRT in 2006–2007, 57% had switched to the lower (0.5 mg) dose. CONCLUSIONS: This analysis provides insight into how new evidence affected HRT use among Canadian female seniors. The decline in HRT use observed was consistent with the results of other studies examining use during this time period. The majority of women still using HRT at the end of the study period were on estrogen-only regimens, with over a third of these women using a lower dose.

PH50 USE OF CATEGORY X AND D API’S DURING PREGNANCY: A COMPARATIVE, RETROSPECTIVE, CROSS-SECTIONAL STUDY USING NAMCS AND NHAMCS DATABASES Mintoop PD; Patel S

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OBJECTIVES: The purpose of this study was to determine the extent of use, during pregnancy, of medication(s) containing the active pharmaceutical ingredient(s) (API) classified to be teratogenic by the FDA. METHODS: This retrospective study analyzed the two cross-sectional databases of the National Ambulatory Medical Care Survey (NAMCS) and the outpatient (OPD) section of the National Hospital Ambulatory Medical Care Survey (NHAMCS). Pregnant women who were prescribed teratogenic APIs categorized by FDA as X or D were included in the study. The un-weighted data from NAMCS and NHAMCS were used to compute the Chi-square test statistics. RESULTS: A total of 61,828 pregnancy related ambulatory visits, 22,94% were physician office (PO) visits, and 77.06% were OPD visits. Medications were prescribed during 63.5% of the ambulatory visits. Category X and/or D APIs were prescribed during 131 of these visits, comprising of 74.81% PO visits and 25.19% OPD visits. Chi-square analysis with the number of visits [when APIs with Risk Categories (X, D, and X-and-D) were prescribed] and the trimester was significant (p = 0.021) among PO visits, but not significant among OPD visits. During the PO-visits, Category D APIs were most frequently prescribed in the 3rd trimester, while Category X- APIs were only prescribed in the 1st trimester. During the 131 visits, 158 Category-X and/or D APIs were prescribed, with 70.9% prescribed during PO-visits, and 29.1% during OPD-visits. Chi-square analysis between the number of APIs [with Risk Categories] and the trimester, was significant (p = 0.025) among OPD-visits but not significant among PO-visits. During the OPD-visits, Category D APIs were most frequently prescribed increased with the progression of the pregnancy. CONCLUSIONS: This study showed that APIs with teratogenic effect were prescribed to pregnant women, particularly during 3rd trimester, with Category D prescriptions being more than that of Category X. A greater number of Category-D and X prescriptions was written during hospital-visits than physician-office visits.

PH51 RACIAL/ETHNIC DISPARITIES IN PRESCRIPTION DRUG USE AMONG OLDER ADULTS IN THE UNITED STATES Lee R; Lindau ST; Conti R; Alexander GC

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OBJECTIVES: We sought to examine racial and ethnic disparities in prescription drug use among the U.S. older adult population. METHODS: The National, Social life, Health and Aging Project (NSHAP) was used for this analysis. NSHAP is a nationally representative probability sample of 3,105 community-dwelling persons 57 to 85 years of age from households across the United States. Household interviews were conducted between July 2005 and March 2006. Multivariate logistic regression was used to examine the factors associated with differences in prescription medication use among non-Hispanic whites (Whites), non-Hispanic blacks (Blacks), and Hispanics (any race). RESULTS: In unadjusted analyses, in comparison to Whites, the use of at least one prescription medication was similar in Blacks (odds ratio [OR] 1.15, 95% confidence intervals [CI] 0.88, 1.57), but significantly less among Hispanics (OR 0.49, CI 0.38, 0.73). After adjusting for demographic and health-related characteristics including diagnosed medical conditions, Whites were significantly more likely to be using prescription medication than either Blacks (OR 0.68, CI 0.49, 0.94) or Hispanics (OR 0.62, CI 0.37, 0.73). Racial/ethnic disparities for Hispanics were significantly reduced (OR 0.73, CI 0.47, 1.14) after accounting for insurance status and usual source of care, and racial/ethnic disparities varied by therapeutic drug class. CONCLUSIONS: These data provide updated, nationally representative estimates of racial and ethnic differences in prescription medication use among community dwelling elders. While differences in demographic and health characteristics did not explain the observed disparities in prescription drug use for blacks, socio-economic and access to care disparities may. However, differences in access to care were more important for Hispanics. In addition, differences in the use of over-the-counter drugs and dietary supplements is also evident.

PH52 TARGETED COMMUNITY OUTREACH REDUCES OUT-OF-POCKET PRESCRIPTION DRUG COSTS OF MEDICARE PART D BENEFICIARIES Staubb AC; Patel RA; Cutler TW; Smith AR; Shannomora S; Patel V; Tsouna SM

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OBJECTIVES: Given the complexity of the Medicare Part D prescription drug benefit and annual plan changes, many Medicare beneficiaries often lack knowledge and skills necessary to select an optimal Part D Plan. Through community-based outreach to historically underserved populations, we sought to minimize beneficiaries’ out-of-pocket (OOP) prescription drug costs. We also examined the relationship between additional governmental assistance and potential OOP cost savings. METHODS: Students from seven California Schools of Pharmacy were trained to provide one-on-one Part D counseling, under faculty supervision. Students obtained the 2009 annual estimated costs for each participant’s current stand-alone prescription drug plan (PDP), and compared these costs to the lowest-cost plan (if different), using the online Medicare Prescription Drug Plan Finder tool. Additionally, each participant’s current plan’s ranking was compared to the 51 PDPs offered in California (2009) and recorded along with subsidy status. RESULTS: During 43 statewide outreach events, pharmacy students counseled 661 beneficiaries enrolled in a PDP, of whom 519 (79%) were receiving governmental assistance with their prescription medication costs (i.e., Medicare or the low-income subsidy). Beneficiaries were, on average, enrolled in the 12th lowest-cost (out of 51) in terms of OOP plan costs, and 496 (75%) beneficiaries had potential OOP savings by switching to a lower-cost plan. Those receiving a subsidy had a lower annual mean OOP potential cost savings than non-subsidized beneficiaries ($359 vs. $587, p < 0.0001). However, they had a higher mean percentage of potential cost-savings relative to the annual cost of their current plan (51% vs. 32%, p < 0.0001). CONCLUSIONS: More than three-fourths of the beneficiaries in this study were not in the PDP with the lowest OOP medication costs. Our data suggested that Medicare beneficiaries, regardless of income, can optimize their prescription drug plan choices through outreach interventions conducted by pharmacy students with Part D expertise.

PH53 5 MEDICARE PART D PLAN BENEFIT DESIGN ASSOCIATED WITH COST-RELATED NONADHERENCE TO PRESCRIPTION DRUGS? AN ANALYSIS USING THE MEDICARE CAHPS DATA Wai B; Howell BL; Frankenfield DL; Anderson KK; Seksenias E

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OBJECTIVES: Cost-related nonadherence to prescription drugs (CRN) can result in unfavorable health conditions. The objective of this study was to examine the relationship between CRN and elements in Part D plan benefit design. METHODS: This was a cross-sectional study using the 2006 Medicare Consumer Assessment of Healthcare Providers and Systems (CAHPS) data. We augmented the CAHPS data with the Centers for Medicare & Medicaid Services (CMS) plan benefit design information, CMS Hierarchical Condition Category scores and a composite socioeconomic indicator derived from U.S. Census data. We examined the relationship using survey logistic modeling. Our analytic data included survey respondents enrolled in a stand-alone prescription drug plan (PDP) or Medicare Advantage drug plan (MA-PD) in 2006. Individuals who were identified by CMS as having other creditable drug coverage, deemed low-income subsidy, or enrolling in MA cost plans were excluded. RESULTS: About one-quarter (weighted percentage) of the study sample (unweighted N = 133,614; weighted N = 11,008,591) was enrolled in an MA-PD. Overall, 24% of the sample enrolled in a plan with drug deductibles, 87% had tiered copayments, 59% were in plans requiring prior authorization or step therapy for eight or more of the top 100 drugs, and 94% offered mailorder services. After adjusting for other variables, we found MA-PD enrollment was associated with higher reported CRN compared with PDP enrollment. Additionally, plans with drug deductibles, tiered copayments, or mailorder services, were also associated with higher reported CRN (OR [95% CI] = 1.12 [1.03–1.21], 1.21 [1.04–1.39], 1.24 [1.06–1.46], respectively). Plans requiring prior authorization or step therapy for eight or more of the top 100 drugs did not present increased risk for CRN. CONCLUSIONS: Medicare

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beneficiaries who were enrolled in an MA-PD or a drug plan with drug deductibles, tiered copayments, or mail order services in the plan benefit design were more likely to experience CRN.

USE OF HYPNOTICS/ANXIOLYTICS IN PATIENTS WITH MAJOR DEPRESSIVE DISORDER: ASSOCIATIONS WITH CHRONIC PAIN, SLEEP DISRUPTIONS, AND ANTIDEPRESSANT SELECTIVITY

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OBJECTIVES: Many patients with major depressive disorder (MDD) suffer from pain (CP) and sleep disturbances (SD). Little is known about the differences between the use of hypnotics/anxiolytics for these conditions and the use of antidepressants in real-world clinical settings. This study examined the use of hypnotics and anxiolytics, their associations with CP and SD, and initiation of serotonin-norepinephrine reuptake inhibitors (SNRIs) and venlafaxine XR in a large population of patients with MDD. METHODS: A total of 153,913 patients who had at least 1 diagnosis of MDD during the year 2006 were selected from a large commercially insured administrative claims database. The analytic sample consisted of 80,654 (53.0%) females and 53,869 (46.9%) females, with a mean age of 43.6 years (SD = 12.7). In accordance with ICD-9-CM, CP was defined as any of the following 6 categories: headache, rheumatoid arthritis, osteoarthritis, low back pain, fibromyalgia, and neuropathic pain. Hypnotics/anxiolytics were classified into 3 categories: benzodiazepines (BZD), non-benzodiazepine hypnotics (NBZENZ), and non-benzodiazepine anxiolytics (NBANA). RESULTS: Of the 153,913 patients with MDD, 35.5% had CP; 5.3%; SD; and 7.3%; CP plus SD. Over the 1-year study period, 33.1% of patients were prescribed BZD; 16.9%, NBZENZ; and 6.1%, NBENA. Of patients with MDD, patients also diagnosed with CP and SD were most frequently prescribed NBENZ, BENZ, and NBENZ (36.4%, 47.7%, 9.6%), followed by patients with SD (30.2%, 36.7%, 6.4%), CP (18.7%, 39.9%, 7.4%), and MDD only (11.6%, 26.1%, 4.6%). Prior use of BZD (OR = 1.5, 95% CI = 1.4-1.6), NBZENZ (OR = 1.6, 95% CI = 1.5-1.7), and NBENA (OR = 1.2, 95% CI = 1.1-1.3) were also associated with significantly increased use of venlafaxine XR. CONCLUSIONS: Hypnotics and anxiolytics are commonly used in MDD patients. CP and SD are associated with increased use of hypnotics and anxiolytics in MDD patients. Prior use of hypnotics and anxiolytics may be associated with antidepressant selection.