

days at intensive care unit. The incremental cost per bed-day saved was R\$419,66. **CONCLUSION:** The NAGIS(c) model of managed high cost patient, called Case Management Program is cost-effective where the incremental cost per bed-day saved is \$419,66, and its return of investment is highly positive.

PHP31

DRUG PROXIES FOR IDENTIFYING SPECIFIC DIAGNOSES IN MEDICARE PART D

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OBJECTIVE: The purpose of this analysis was to develop a method for identifying Medicare Part D members with cardiovascular disease using medication proxies. **METHODS:** A binary matrix was created from cardiovascular medication prescription claims for Medicare Part D MAPD and commercial members from the first quarter of 2007. The binary matrix was subjected to factor/principal component analysis. The maximum valued factor loading for each of the generated components were then used to create a member/factor loading matrix. This matrix was used to derive beta coefficients, from logistic regression, to calculate a member's probability of having hypertension, CAD, or CHF. **RESULTS:** One-hundred and twelve factors were produced over 696,471 members prescribed cardiovascular medications. Different probability thresholds were evaluated to determine the sensitivity and specificity for the identification method. The threshold probabilities ran from >0.30 to >0.975. As the threshold probabilities increased, sensitivity/specificity for hypertension, CAD, and CHF ran from 0.99/0.50–0.50/0.99, 0.61/0.91–0.50/0.99, and 0.63/0.96–0.50/0.99, respectively. A similar result was produced using maximum score coefficients resulting from the principal component analysis. **CONCLUSION:** Although this approach to identifying members with medication proxies appears to separate members with and without certain cardiovascular conditions, it tends to exclude members at the cost of minimizing erroneously identified members.

HEALTH CARE USE & POLICY STUDIES—Drug Use

PHP32

WHAT'S DRIVING PRESCRIPTION COPAYMENTS?

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OBJECTIVE: Some contend that prescription copayment increases reflect a disproportional shifting of costs to members while others believe that copayments are simply keeping pace with rising prescription costs. To better understand the drivers of prescription cost sharing, this analysis examines recent trends in member copayments relative to total prescription costs. **METHODS:** The study is a retrospective descriptive analysis of prescription claims data for a sample of commercially-insured members enrolled with Express Scripts between 2002 and 2006. Plan sponsors included in the analysis offered integrated prescription coverage within an employer-based market (no Medicare or Medicaid). For each year, the data represent prescription claim activity for over 18 million members. Total per-prescription costs were calculated as the sum of the discounted ingredient cost, dispensing fee, administrative fees and any applicable tax divided by the number of 30-day equivalent prescriptions. Average member per-prescription cost was calculated as the total member cost divided by the total number of 30-day equivalent prescriptions. Costs were calculated separately for generics, preferred brands and non-preferred brand-name prescriptions. **RESULTS:**

From 2002 to 2006 the average total per-prescription cost increased \$10.23 or 20.5% while the average member per prescription copayment increased by \$1.70 or 14.3%. The proportion of total costs paid by members decreased from 24% in 2002 to 23% in 2006. Per-prescription member costs increased by 10% for generics, 25.7% for preferred brands and 58.6% for non-preferred brands. **CONCLUSION:** These findings suggest that plan sponsors are not shifting a greater proportion of costs to members, nor is member cost share keeping pace with rising prescription costs. Actual per-prescription member cost share increased at a modest rate, influenced by increased generic use which grew from 42% in 2002 to 58% in 2006.

PHP33

HERB/DIETARY SUPPLEMENT AND PRESCRIPTION DRUG USE TRENDS AMONG US ADULTS, 1999–2004

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OBJECTIVE: The aim of this study was to evaluate trends in the use of herbs and dietary supplements (HDS) in relation to prescription drug (Rx) use, as well as their individual use, among US adults from 1999–2004. **METHODS:** Data were abstracted from the 1999–2000 and 2003–2004 cycles of the National Health and Nutrition Examination Survey (NHANES). HDS included herbs, vitamins, minerals, and other supplements. Trends in HDS and/or Rx use were examined based on stratified characteristics (i.e., sociodemographics, insurance coverage, health care visits during the preceding year, chronic conditions). Sampling weights were adjusted to allow for the pooling of data from multiple waves. **RESULTS:** Overall, the proportion of HDS users increased from 51.2% during 1999–2000 to 53.0% during 2003–2004, while that of Rx users increased from 49.9% to 55.6% over the same period. Between 1999 and 2004, the proportion of HDS-only users decreased while the proportion of people who only used Rx increased. The concomitant use of HDS and Rx increased for most subgroups, except for those who had an annual household income less than \$14,999 or greater than \$65,000, and who had never have health care visits during the preceding year. **CONCLUSION:** Trends suggest that concomitant HDS and Rx use increased over the period of observation in the general US population. Further research is needed to investigate the outcomes of concurrent HDS and Rx use.

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PRINCIPAL COMPONENTS ANALYSIS OF DRUG UTILIZATION AND EXPENDITURE TRENDS FOR MAJOR THERAPEUTIC CLASSES IN U.S. MEDICAID PROGRAMS

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OBJECTIVE: Drug expenditures have been increasing much faster than spending on other medical services and have become burdensome for state Medicaid programs. This study was to analyze the trends of Medicaid drug utilization and expenditures across all major therapeutic classes and to identify their similarities and differences. **METHODS:** Quarterly Medicaid reimbursed drug prescriptions and dollar amounts for each drug were extracted from the national claims data from the Centers for Medicare & Medicaid Services for 1991 through 2004. Expenditures were aggregated across all drugs in 64 different therapeutic classes, providing 64 different time series of length 56 quarters