

were satisfied with their health coverage (3.78 1.89). Respondents in this study had low physical (PC) (47.23 \pm 9.69) and mental (MC) (47.11 \pm 11.33) composite scores on the SF-12 scale. There was a significant correlation between involvement in activities to improve health and patient satisfaction scores. **CONCLUSIONS:** Consumers were highly motivated to improve their health. Health involvement could be used as a predictor of humanistic outcomes in future studies.

PHP29**PREDICTIVE FACTORS OF INPATIENT DRUG COSTS IN A MOTHER-CHILD TEACHING HOSPITAL**

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OBJECTIVE: To identify predictive factors of inpatient drug costs in a 500-bed mother-child teaching hospital. **METHODS:** All hospitalisations in 2000/2001 and 2001/2002 were evaluated. Categorical variables included were major category of diagnosis (MCD) (n = 25), severity index (n = 4), risk index (n = 4) and patient care units (n = 41). Continuous variables included were patient weight (kg), level of intensity of resources utilised (LIRU) and total inpatient drug costs/patient-year. Outliers were excluded: inpatient drug costs/patient-year greater than 5000 \$CDN, LIRU > 50 and MCD with less than 10 patients per fiscal year. MCD were analysed as serial dichotomical variables. Data were extracted from the admission and the pharmacy software system. **RESULTS:** Analysis were based on a cohort of 8479 patients in 2000/2001 and 7355 patients in 2001/2002. Cost was divided by patient's body weight and log-transformed. A stepwise block multiple regression was processed in two blocks: a first block included LIRU, severity index and risk index and a second block added relevant MCD. Cumulative R² were respectively 29.3 and 33.5 for both fiscal year. The standardised weight of the variables included for both years were similar. Individual R² were 15.7 and 19.4 for LIRU, 4.7 and 3.3 for severity index, 0.1 and 0.2 for risk index and 8.9 and 10.6 for a selection of relevant MCD. A third of total inpatient drug costs/patient-year can be explained by level of intensity of resources utilised, some major category of diagnosis, severity index and risk index. **CONCLUSIONS:** There are limited information published on predictive factors of inpatient drug costs/patient-year in hospitals. Further analyses are required to build a useful and stronger model for planning and benchmarking drugs costs in hospitals.

PHP30**RATES OF CONTINUATION OF NON FORMULARY MEDICATIONS FOR CHRONIC DISEASE SUFFERERS IN MULTI-TIERED PHARMACY BENEFIT PLANS**

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OBJECTIVE: Evaluate the impact of 3-tier pharmacy benefit structures on medication switching patterns. **METHODS:** The study design was a "pre"-test/"post"-test quasi-experimental design with comparison groups using chronic disease sufferers from a health plan in the Western US. Individuals with 2 prescriptions for a non formulary medication (n = 1729) were classified by their pharmacy benefit group as: a) 2-tier moving to a 3-tier structure, ("converting" group); b) 2-tier staying in a 2-tier structure; and c) 3-tier staying in a 3-tier structure. The latter two were "comparison" groups. Two time periods were studied: the "pre" period before and the "post" period, after a change in pharmacy benefit structure. Cox regressions, adjusting for age, gender, chronic disease scores and pharmacy plan structure, assessed differences in the continuation rates of non formulary medications across all groups. **RESULTS:** Over 60% switched to formulary alternatives when faced with increased co-payments, of which 43.3% switched to a brand alternative (p < 0.001). Less than 10% discontinued their medication. Cumulative continuation rate was higher for the converting group: 30.1% (95% CI 27.6%–34.1%) and similar for members in the two-tier comparison group: 26% (95% CI 21.2%–32.6%). Three-tier comparison group members were half as likely to continue their non formulary medications during the post period: 17.1% (95% CI 14.3%–20.4%). **CONCLUSIONS:** Individuals confronted with increased co-payments due to the implementation of a three-tier plan often switched their medications to formulary alternatives. While this finding supports the general purpose of three-tier structures, of concern is the potential impact on individuals who discontinued their medications due to these changes.

HEALTHCARE POLICY—Healthcare Expenditure Studies (Including Productivity)**PHP31****WHAT WE HAVE MISUNDERSTOOD OF THE HIGH RATE OF OUT-OF-POCKET PAYMENTS IN HEALTH CARE SYSTEMS**

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OBJECTIVE: Among OECD countries Korea has the highest rate of out-of-pocket payments (OOP) in the health care system. This has been pointed out and suggested that it should be much lower. This study investi-