variable is per capita pharmaceutical and other medical non-durable expenditures. Exploratory variables investigated include per capita GDP (Gross Domestic Product), % of elderly population (65+ years), % of population with higher education (college+), school expectancy, calorie intake per capita per day, alcohol consumption in liters per capita (age 15+), % of expenditures on pharmaceuticals and other medical non-durables funded by the public sector, number of practicing physicians, % of population with public health care coverage, number of doctor consultations per capita and % urbanized. All monetary values were converted into US dollars based on GDP purchasing power parity. A log-linear (constant elasticity) regression model was used. RESULTS: The final model included 6 explanatory variables with an adjusted $R^2 = 0.744$. The White test was used to correct heteroskedasticity. The natural log of GDP per capita variables with an adjusted $R^2 = 0.0003$, $p = 0.008$, and calories intake ($b = 0.0003$, $p = 0.002$) had positive, statistically significant effects on pharmaceutical expenditures at $\alpha < 0.01$. Percent of population with higher education ($b = 0.012$, $p = 0.22$) and public financing ($b = -0.001$, $p = 0.43$) were not significant. Alcohol consumption (another indicator of lifestyle behaviors); number of physicians and public health care coverage (indicators of relative size of the health care system); urbanization (indicator of development); and school expectancy (another indicator of educational development) did not contribute to the model. CONCLUSIONS: OECD countries with more wealth, more elderly people, more doctor consultations, and more calorie intake tend to spend more on pharmaceuticals and other medical non-durables. Size of the health care system and financing methods do not explain differences in pharmaceutical expenditures.

PHP26
THE CURRENT AND FUTURE OF PHARMACOECONOMICS IN UKRAINE
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OBJECTIVES: In Ukraine the government authorizes the State program of maintenance of the population by medical products for 2004–2010, which provides use of pharmacoeconomic analysis methods. The State Formulary for pharmaceutical provision are formed. METHODS: We have analyzed all available pharmacoeconomic studies published in Ukraine for 1998–2004 to assess methodological problems and potential for future use of pharmacoeconomic methods in drug policy. RESULTS: We have established, that the quantity of published pharmacoeconomic researches has increased in 7.3 times. Methodological quality is generally insufficient. Cost-minimization is the preferred technique although differences in effectiveness are not properly assessed. Few studies describe costing and cost-effectiveness methodologies. Modeling studies are weak due absence of epidemiological and economical database. Societal perspective is rarely used—the health care perspective prevails. Little study exist in QoL measurement and cost-utility techniques. Industry use of pharmacoeconomic is mainly for supporting marketing and sales. Physicians are increasingly receptive of pharmaco-economic analysis, but little value on modeling approaches. We develop methodical recommendations on use of pharmaco-economic analysis methods in Ukraine, authorized by Ministry of Health. We have conducted the analysis of consumption of antidiabetic agents in the defined daily doses. We published the circular “A Technique of pharmacoeconomic analysis ‘cost-effectiveness’ for definition of need in medicinal tools in Ukraine”, CONCLUSION: Pharmacoconomics must improve methodological standards in Ukraine. This is a task for both government and industry with the purpose of creation of State Formulary.

PHP25
ANALYSIS OF PRESCRIBING PATTERN WITH THE NEGATIVE LIST FORMULARY SYSTEM IN KOREA
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OBJECTIVES: All approved pharmaceutical products in Korea are available for reimbursement except some products on the negative list. The aim of this study is to examine how many products are actually prescribed by doctors and to compare the prescribing patterns in inpatient and outpatient settings. METHODS: Prescription data were obtained from the Korean National Health Insurance claims database of April 2004 for all the hospitals and clinics in Korea. The numbers of prescribed products and ingredients were calculated along with the drug expenditure incurred. RESULTS: In April 2004, 19,452 pharmaceutical products (5120 ingredients) were on the list of reimbursable drug formulary. Among them 9423 products (3208 ingredients), 48.2% of the reimbursable products, were actually prescribed for inpatients. For outpatients, 11,823 products (3731 ingredients), 60.8% of reimbursable products, were prescribed. Although more than 9000 pharmaceutical products were prescribed by doctors, top quintile high-expenditure drugs of 1885 took up 94% of total drug expenditure for inpatients, whereas top quintile 2365 products did 91.5% for outpatients. Also, top quintile high-expenditure ingredients of 632 accounted for 93% of total drug expenditure for inpatients, whereas those of 746 ingredients did 92% for outpatients. CONCLUSIONS: Unlike in western societies, more products and ingredients were prescribed for outpatients than for inpatients in Korea. This study also showed that although various pharmaceutical products were prescribed, the top 20% (high-expenditure drugs) of all products and ingredients took up the lion’s share of total drug expenditure. It suggests that there is a need of introduction of positive list formulary system for the efficient drug benefit management.

PHP27
QUALITY OF ECONOMIC MODELS IN DOSSIERS SUBMITTED UNDER THE AMCP FORMAT
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OBJECTIVES: To investigate the quality and completeness of economic models submitted by pharmaceutical manufacturers to health plans under the Academy of Managed Care Pharmacy (AMCP) Format for formulary submissions, and to compare economic models of “me-too” versus drugs judged to have significant competitive edge. METHODS: We analyzed economic models included in AMCP-Format dossiers submitted by pharmaceutical companies to the pharmacy services staff of Premera Blue Cross (Mountlake Terrace, WA, enrollment 1.5 million) in 2003. “Economic models” were defined as mathematical simulations that combined clinical and cost data to estimate the economic value of a drug. We assessed models’ compliance with criteria recommended by the Panel on Cost-Effectiveness in Health and Medicine, including: justification of model type; statement of time horizon and discount rate; discussion and reporting of productivity changes; separate reporting of resource quantities from prices; comparison against relevant alternatives;
php28
THE EFFECT OF CORPORATE STRUCTURE ON FORMULARY DESIGN: THE CASE OF LARGE INSURANCE COMPANIES

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OBJECTIVE: To test the hypothesis that the corporate structure of large health insurance companies affects formulary design. By choosing what is solely at the discretion of pharmacy benefit managers (PBMs), their national formularies, as the dependent variable, rather than the generic utilization rate, the need to factor out extraneous demand factors was minimized.

METHODS: The 2004 published formularies of the following three groups were examined: a) the national formularies of four large independent PBMs; b) the formularies of six large insurance companies that have contracted with these large PBMs to managed their drug benefit plans; and c) the formularies of four large insurance companies that manage PBM functions internally. Three therapeutic classes—proton pump inhibitors, COX-2 inhibitors, and second generation antihistamines—were selected on the basis of widespread claims of the existence of lower cost generics that are therapeutic equivalents. The number of brand name drugs selected for the “Tier 2” was tallied for each formulary across the three selected therapeutic classes.

RESULTS: There was a significant difference in the number of “Tier 2” brand name drugs in the selected therapeutic classes of formularies of the large insurance companies with differing corporate structures. However, there was significant drop off in the number of brands included in the national formularies of the four large, independent PBMs and the number of brands in the “Tier 2” of final plan formularies chosen by their clients. CONCLUSION: Large insurance companies relying on independent PBMs for formulary management take an active role in the design process and neutralize the effect that corporate structure has on the starting point of the design process.

php30
USE OF EMERGENCY DEPARTMENTS BY HOMELESS PERSONS FOR NON-EMERGENCY CARE DURING ONE YEAR: RESOURCE USE AND COST

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OBJECTIVES: Emergency department (ED) use and costs were examined for care of non-emergency problems during a one year period for a patient cohort noted to be “homeless”. METHODS: Using 2001–2002 Massachusetts ED data, a patient cohort was identified by personal identifiers and the “homeless” indicator. Visit reason was determined using ICD-9 diagnosis and visit status codes. A non-emergency visit was defined by a status other than “emergency” and/or diagnosis not indicating a life threatening condition (e.g., myocardial infarction) or injury. An ED visit profile was established for each patient over a one-year period by tracking all non-emergency ED visits for 12 months for each patient. Cost estimates, reported in 2004 USD, include accommodations and ancillaries. Charges were adjusted using a 0.55 cost-to-charge ratio and appropriate inflation indices. RESULTS: Less than 1% of ED visits were noted to be for homeless persons; however, 58% of ED cases had “unknown” recorded for homeless status. Of the 2452 ED patients recorded as homeless, 1244 (51%) were treated for non-emergency problems (males = 69%, mean age = 43 years). On average, these patients had 1.4 non-emergency ED visits during the year (range: 1–14). Reason for visit: chronic and other medical = 28%, alcohol/drug related = 27%, psychiatric = 14%, routine exam/dental/ENT/eye = 10%, musculoskeletal = 10%, infection = 9%, OB/GYN = 2%. Mean ED visit was 4.8 hours (median: