ferent amounts per health category even after adjusting for population size and needs.

**RESULTS:** CONCLUSIONS: The cluster analysis indicates that the health areas cannot be considered to behave similarly to one another, since there is more than one cluster in each year and the clusters are stable over time.

**PHP79 MEDICATION USE SURVEY OF INPATIENTS WITH BASIC MEDICAL INSURANCE FROM 2010 TO 2012**

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**OBJECTIVES:** The objective is to provide data support for government decision-making by having a general view of the status of disease composition, patient flow and use of drug and treatment of inpatients with basic medical insurance in cities and towns based on sample survey on the medical service utilization and payment behaviors from 2010 to 2012 and the time of being released, according to systematic sampling method, extract a certain proportion of the insured patients’ hospitalizing information in sampling area. Then project the sample data to the country. Retrospective study using SQL query software. The sample is set to a 0.05 level of confidence interval for about 60% of the total inpatient population. In the disease sub-category, the three most common diseases accounts for more than 20% of total diseases in patient-time. Due to the strengthening of clinical management of antibiotics, example of systemic anti-biotics decreased year by year, with 22.46% in 2012, significantly lower than 28.99% in 2010. **CONCLUSIONS:** With the establishment and improvement of national basic health insurance systems, the needs for insurance payments have been growing, but did not meet with substantive effect, but the resulting pressure on fund spending should be given more attention. With the continuous attention to the rational clinical treatment, irrationality of clinical medication use has improved, but there still remains room to improve.

**PHP80 WHICH DISEASES ARE DRIVING THE INCREASE IN SPENDING FOR THE PRIVATELY INSURED POPULATION OF THE US?**

Marder WD, Huse DM

**OBJECTIVES:** This study examines disease-specific spending across the full range of conditions to identify which conditions are driving the growth in overall spending in recent years. **METHODS:** Truven Health MarketScan data for 8M employees and their dependents in FFS plans in 2007 and 2012 are analyzed. The samples were weighted to reflect the demographic composition of all US employer health plans in those years (as captured by the US Medical Expenditure Panel Survey). Total health care spending for each patient was allocated across diseases using the Medical Episode Grouper (MEG). MEG allocates the 16,000 ICD9 diagnosis codes into 572 conditions. Drug spending is assigned to conditions based on clinical logic. Adjudicated payments were summed for each episode type that a patient experienced. Analysis focused on absolute change in level of per member per month spending grew faster (5.9%) than other settings and prescription drug spending was lower (3.8%) per year between 2007 and 2012. Hospital outpatient spending grew faster (5.9%) than other settings and prescription drug spending was lower (3.8%) per year between 2007 and 2012. Hospital outpatient spending grew faster (5.9%) than other settings and prescription drug spending was lower (3.8%) per year between 2007 and 2012. Hospital outpatient spending grew faster (5.9%) than other settings and prescription drug spending was lower (3.8%) per year between 2007 and 2012. Hospital outpatient spending grew faster (5.9%) than other settings and prescription drug spending was lower (3.8%) per year between 2007 and 2012. Hospital outpatient spending grew faster (5.9%) than other settings and prescription drug spending was lower (3.8%) per year between 2007 and 2012. Hospital outpatient spending grew faster (5.9%) than other settings and prescription drug spending was lower (3.8%) per year between 2007 and 2012. Hospital outpatient spending grew faster (5.9%) than other settings and prescription drug spending was lower (3.8%) per year between 2007 and 2012. **RESULTS:** Among the top four most afflicted, accounting for about 60% of the total inpatient population. In the disease sub-category, the three most common diseases accounted for more than 20% of total diseases in patient-time. Due to the strengthening of clinical management of antibiotics, example of systemic anti-biotics decreased year by year, with 22.46% in 2012, significantly lower than 28.99% in 2010. **CONCLUSIONS:** With the establishment and improvement of national basic health insurance systems, the needs for insurance payments have been growing, but did not meet with substantive effect, but the resulting pressure on fund spending should be given more attention. With the continuous attention to the rational clinical treatment, irrationality of clinical medication use has improved, but there still remains room to improve.

**PHP81 ACA’S IMPACT ON MERGERS AND WELLNESS: ASSESSING VALUE FOR MONEY**

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**OBJECTIVES:** The Affordable Care Act (ACA) initiated healthcare reforms that stress the "triple aim" goals: improving patient care, population health, and reducing costs. The Affordable Care Act (ACA) initiated healthcare reforms that stress the "triple aim" goals: improving patient care, population health, and reducing costs. The Affordable Care Act (ACA) initiated healthcare reforms that stress the "triple aim" goals: improving patient care, population health, and reducing costs. The Affordable Care Act (ACA) initiated healthcare reforms that stress the "triple aim" goals: improving patient care, population health, and reducing costs. **OBJECTIVES:** The Affordable Care Act (ACA) initiated healthcare reforms that stress the "triple aim" goals: improving patient care, population health, and reducing costs. **METHODS:** Quarterly sales data for twenty-two drugs, biologicals for rheumatoid arthritis (RA), new generation asthmas drugs and statins and contemporary publication counts of HEOR, clinical and meta-analytic studies were analyzed. Clinical studies were categorized by journal impact factor. The total analysis period spanned 2003–2013, with drug-specific exposure varying based on its branded status over that timeframe. Covariates included generic availability, safety warnings, and new indications (as a proxy for sales effort). Firstly we estimated the difference in mean sales between the period of introduction and first year and the differences in mean sales between the period of introduction and the next quarter. Secondly, the potential causal effect of an HEOR study publication on next quarter’s sales was estimated. High-impact clinical publication also significantly increased sales in the next quarter (~$7.5 million). **RESULTS:** Impact of HEOR and high-impact clinical studies was associated with an increase in quarterly sales in the statin market, where generic competition is high. This effects were seen to a lesser degree in the RA and KA markets, where generic competition is low. Market characteristics that vary across the studied classes, such as branded and generic competition, may dictate returns from HEOR and clinical studies.

**PHP82 IMPACT OF CLINICAL AND HEALTH ECONOMIC PUBLICATIONS ON COMMERCIAL SUCCESS OF PHARMACEUTICAL PRODUCTS IN THE U.S**

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**OBJECTIVES:** The study objective was to estimate the causal effect of the publication of drug-specific clinical and health economic outcomes research (HEOR) publications and product sales. **METHODS:** Quarterly sales data for twenty-two drugs, biologicals for rheumatoid arthritis (RA), new generation asthmas drugs and statins and contemporary publication counts of HEOR, clinical and meta-analytic studies were analyzed. Clinical studies were categorized by journal impact factor. The total analysis period spanned 2003–2013, with drug-specific exposure varying based on its branded status over that timeframe. Covariates included generic availability, safety warnings, and new indications (as a proxy for sales effort). Firstly we estimated the difference in mean sales between the period of introduction and first year and the differences in mean sales between the period of introduction and the next quarter. Secondly, the potential causal effect of an HEOR study publication on next quarter’s sales was estimated. High-impact clinical publication also significantly increased sales in the next quarter (~$7.5 million). Meta-analyses were only found to have a significant effect on RA drugs (~$3.5 million). **RESULTS:** Impact of HEOR and high-impact clinical studies was associated with an increase in quarterly sales in the statin market, where generic competition is high. This effects were seen to a lesser degree in the RA and KA markets, where generic competition is low. Market characteristics that vary across the studied classes, such as branded and generic competition, may dictate returns from HEOR and clinical studies.

**PHP83 PREVALENCE OF MEDICATION USE NOT CAPTURED BY PRESCRIPTION CLAIMS DATABASES AND AN ANALYSIS USING 2012 MEDICAL EXPENDITURE PANEL SURVEY DATA**

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**OBJECTIVES:** Prescription claims databases are used for identifying patients for disease management programs and studying health outcomes. The growth in the use of drug samples and discount generic programs suggests that an increasing number of patients are using prescription systems in addition to those captured by claims databases. We examined the extent to which prescription claims databases do not provide complete records of insured patients’ drug use and report the top 5 drug classes and discount generic programs. **METHODS:** We used the 2012 Medical Expenditure Panel Survey (MEPS) dataset. We included participants who purchased at least one prescription medication and had prescription drug insurance for 2012. We quantified the extent to which insured patients used drug samples and/or discount generics. We reported descriptive statistics. We used Enhanced Therapeutic Classification (ETC) codes to report the top 5 drug classes that were dispensed as drug samples and discount generics. **RESULTS:** A total of 78.6% of the U.S. non-institutionalized civilian population was insured for prescription drugs. The total number of prescriptions dispensed to insured consumers, at least 0.5% were drug samples and 4.8% were potentially discount generics. Additionally, 8% of insured consumers received at least one sample medication and 21.5% used at least one potential discount generic product. The top 5 drug classes dispensed as drug samples in descending order were statins, Angiotensin Converting Enzyme (ACE) inhibitors, beta-blockers (cardiac selective), Selective Serotonin Reuptake Inhibitors (SSRIs) and Proton Pump Inhibitors (PPIs). The top 5 drug classes dispensed as discount generics in descending order were statins, ACE inhibitors, SSRIs, beta-blockers (cardiac selective) and PPIs. **CONCLUSIONS:** Our results indicate that drug samples do not contribute substantially to the problem of missing prescription data on claims databases. A substantial number of prescriptions that are discount generics may be missing from these databases.

**PHP84 IMPROVED HEOR WRITING SKILLS OF KEEN INTEREST TO BIO/PHARMA HEOR DIRECTORS AND MANAGERS**

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**OBJECTIVES:** While all pharmaceutical organizations are held responsible for disseminating their products and outcomes (HEOR) data, it is not known whether professionals in HEOR agree on the quality of materials being disseminated; nor do we know how often these documents are developed internally or outsourced. Therefore, the objective of this study was to assess the perceived level of quality of the materials as well as ways to improve the expanded services and mandating quality. Studies show that wellness programs are growing in number and in various sizes, services, and incentives resulting in significant non-return-on-investment (ROI). Few employers have measured the ROI and even fewer their health outcomes. However, successful programs have shown a median ROI between 2:1 and 3:1. Studies suggest that disease-management services account for significant portion of the ROI and where ROI studies do not. For example, the partnership between Piedmont and WellStar of Georgia supported implementation of care-management programs, with higher quality at reduced costs. **CONCLUSIONS:** Although most are not reporting ROI, studies show the value of wellness programs should be based on health outcomes.
most cited areas of concern about writing quality beyond the general question about
citation materials. Improvement in value messaging and methodology were the two

55% of respondents are not satisfied with the quality of writing for their communi-
cations and 50% had more than 3 years in their current position. Forty-seven percent
of respondents indicated that they use source manuscripts and 25% of respondents
outsource abstracts. Consistently across several quality measures, approximately
55% of respondents are not satisfied with the quality of writing for their communi-
cation materials. Improvement in value messaging and methodology were the two

the most cited areas of concern about writing quality beyond the general question about
satisfaction with overall writing quality. CONCLUSIONS: More than 50% of HEOR execu-
tives perform their work in companies which differ in size and resources, and it is

important to consider these differences when developing dissemination materials and more appropri-
ate terminology in addressing their business objectives with scientifically rigorous
content. Therefore, it is apparent from these survey results that HEOR directors and
managers consider nearly half of all their communications to not be well-written.

PHPB
COMMUNICATING RISK OF MEDICATION SIDE EFFECTS: HOW RARE IS “RARE”
AND HOW LIKELY IS “PROBABLY”?
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OBJECTIVES: Effective communication of risk of medication side effects is neces-
sary to avoid its misinterpretation and over-estimation by patients. The study evaluated effect of communication style (verbal vs verbal + numeric) on perception of risk of experiencing medication side effects of different frequency and severity.

Participants were randomly presented with information on medication side effects using either verbal (e.g. “rarely”) or verbal + numeric (e.g. “rarely i.e. 2 out of 100”) communication style for frequency descriptions, in a 2 (comm-
munication style: verbal + numeric) X 3 (side effect severity: low, medium, high) X 2 (side effect severity: mild, severe) experimental design. Perception of risk of experiencing side effects was measured and test for analysis of variance was performed. RESULTS: Communication style was observed to sig-
ificantly affect perception of risk. Communication style affected perception of risk for certain combinations of severity and frequency. It was observed that with combined communication style (verbal + numeric), risk perception of severe side effects of low frequency decreased (mean difference: 11.24; CI: 8.85 – 13.62) whereas that of mild side effects of high frequency increased (mean difference: 7.80; CI: 12.11 – 14.39) as compared to only verbal communication style. It was also observed that the low and high frequency side effects were better distinguished with respect to their risk when combined communication style was used as compared to risk perception difference between verbal and verbal + numeric side effects: 36.24; C.I.: 31.58 – 40.89) as compared to verbal only (mean difference: 22.2; C.I.: 17.53 – 26.84). Significant main effects of frequency and severity on risk perception were also observed. CONCLUSIONS: Use of numeric frequencies along with ver-
bal descriptions of risk of medication side effect helps in better understanding of
underlying risk and reduces its over-estimation, especially for low frequency side effects. Healthcare professionals should take into consideration these effects while communication of side-effect risks to their patients.

PHPB6
THE NUTRITIONAL STATUS OF ORPHANS AND CHILDREN LEFT WITHOUT
PARENTAL CARE IN THE CHILDREN’S HOMES OF THE HEALTH SYSTEM IN KAZAKHSTAN
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OBJECTIVES: In 2006 a number of studies were conducted in Kazakhstan with
UNICEF, which have shown that the majority of children in children’s homes are at
risk of essential nutrients deficiency. So we have investigated a nutrition adequacy
status of children from orphanages and Almaty regions in the ages of 6 to 36 months. The study did not include children with disabilities or severe
diseases. 100 children (57 boys, 43 girls) from the families in organized groups
were taken as control group. Were evaluated a physiological status, hemoglobin,
morphofunctional status of the children, also the analysis of food packages and
the chemical composition of the diet were done. Malnutrition was calculated by
“Anthro” program (WHO, 2006). RESULTS: Birth weight corresponded to normal in
67% of children under parental care and 33% of orphans, 56% of orphans are lag-
ging in teething development, in the control group was no lag (1%). 15% of orphans
have clinical manifestations of changes in skin, mucus membranes and bone.
Consumption of the main types of products (primarily meat, milk, fish, vegetables
and fruit) in children’s homes was below current standards and recommendations
of the Kazakhstan Academy of Nutrition, based on international experience. Because of
inadequate food intake, the orphans have an expressed protein deficit (25%), PUFA (32%)
and n-3 (23%), n-6 (45%), saturated fatty acids (53%), vitamin B12 (37%),
ascorbic acid (59%) and copper. CONCLUSIONS: Analysis showed that the actual
children nutrition scheme is obsolete and needs to be revised in a short time.
The study will have indices of more in-depth clinical examination and Qol evaluation
with further economical calculation (budget impact, etc.)

PHPB7
WHAT FACTORS MAKE ECONOMIC EVALUATION MORE VALUABLE AS A
SERVICE
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OBJECTIVES: Economic evaluations (EE) are ubiquitous and growing in importance
for healthcare decision making. However, healthcare decision makers often do not use this evidence when making decisions. Previous research has shown several factors influence the use of EE, such as credibility, complexity, and timeliness. However, no research has examined the relative importance of these factors among different EE types. Therefore, we sought to examine what factors are most important to healthcare professionals/ administrators/research-
ers, when examining research using EE. METHODS: Study 1, an online question-
naire, was distributed to control practitioners (N=30), sought ratings of the absolute
and relative importance of a range of barriers and facilitators of using EE in healthcare decision making. Seven factors (rigor of the cost effectiveness
analysis, quality of the clinical evidence, timeliness, communication, applicabil-
ity, impacts of interest, equity) were selected from this study to inform Study 2. Study 2 used a discrete choice experiment (blocked, orthogonal design) to examine
the relative importance of these seven factors in the choice between two health economic analysis methods. RESULTS: Study 1 showed that quality of clinical evidence was the most important factor when examining EE,
followed by applicability, communication, and the rigour of the cost effectiveness
analysis. Study 2 showed that quality of clinical evidence and communication
were the most important factors. This research represents the first study to use a preference analytic technique to measure what is valuable in a
decision tool. The findings from this research will provide guidance on how
to better deliver EE to end users.

PHPB8
REAL WORLD DATA FOR HEALTH AND TECHNOLOGY ASSESSMENT IN BRAZIL:
AN UNMET NEED
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OBJECTIVES: The use of real-world evidence in HTA is increasingly adopted due to
largely on observational studies developed through the compilation of real world data. From the access and health technol-

ogy assessment (HTA) perspectives, real world data are an essential ancillary tool
in decision-making, providing information on burden of disease, cost-of-illness,
respective to treatment, compliance, natural history of the disease, effectiveness and safety. The Brazilian Network for Health Technology Assessment (REBRATS) recommends the use of observational studies to develop economic evaluations for both effectiveness and safety. However, the extent of use of such data in Brazil remains unexamined. Our objective was to identify the requirements and needs for epidemiological data regarding HTA submissions in Brazil.

METHODS: We reviewed HTA requirements, reports and dosiers from the Brazilian HTA commission (CONITEC) for epidemiological data aimed at incor-
poration. Additionally, we searched Brazilian guidelines and regulations about
principles for real world data requirements for HTA. RESULTS: CONITEC issued 119 reports between the time of its establishment (April 2011) and the date of our analysis (December 08th, 2014). The Committee reported lack of real world studies in 11.8% of the submissions (14 of 119 reports), including the need
of epidemiological studies (prevalence and incidence) (n=8), safety and efficacy tri-
als (n=2), safety and efficacy trials (n=1), diagnostic and prognostic studies (n=1) and resource use and cost-of-illness analyses (n=1). The lack of epidemi-
ologic data was the most common issue (8 of 14 reports). However, real world data regarding safety, effectiveness and clinical characteristics were also critical (7 of
14 reports). CONCLUSIONS: Our analysis showed that use of real world data in Brazil remains an unmet need for HTA.