A752 VALUE IN HEALTH 17 (2014) A719–A813

the first and second strategies, respectively, which were much lower than the 2013 Indonesian Gross Domestic Product (GDP) capital of US$ 7,970. CONCLUSIONS: The implementation of a birth-dose rotavirusvaccination strategy in Indonesia would be more cost-effective than a later vaccination schedule. The mortality rate and vaccine price were the most influential parameters impacting the cost-effectiveness results.

**PIH17**
THE PHARMACOECONOMICS REVIEW OF 7-VALENT PNEUMOCOCCAL CONJUGATE VACCINATION IN ASIAN-Pacific REGION
Zhu L
Analysis Group, Cambridge, MA, USA

**OBJECTIVES:** Since 2000, when the PCV7 (7-valent Pneumococcal Conjugate Vaccine) gradually went public, lots of cost-effectiveness evaluations on it have been done in Euro-American countries. In contrast, there is little economic review on PCV7 in Asian-Pacific region. This review comprehensively validated the cost and benefits of introducing PCV7 into the national immunization plan (evaluation include with and without the herd effect) of the Asia-Pacific region, to serve as a policy reference for the Asian-Pacific regions in their immunization plans. **METHODS:** All articles were identified and screened from PubMed database from January 2000 to June 30th, 2013 in Korea, Hong Kong, Malaysia, Singapore, Australia and Japan. The following keywords were used: cost, cost-effectiveness, pneumococcal diseases and pneumococcal conjugate vaccine. Results were collected in different assumptions, such as incidence ratios, vaccine uptake rate, and duration of protection and so on. Costs included both direct and indirect cost. **RESULTS:** The clinical benefits and cost effective results varied from country to country. For illnesses avoiding, the results varied between 4,030 and 30,040 per year. In terms of deaths avoided, the number of events varied between 14.2 and 643 per year. Studies that considered herd effects reported much more favorable cost-effectiveness than those that did not, with the ICERS US$950/LYG in Hong Kong, US$15,263/LYG in Malaysia, US$43,275/QALY in Singapore from social perspective. **CONCLUSIONS:** With respect to the WHO’s classification that an intervention is cost-effective if ICER is between 1 and 3 times of GDP, universal PCV7 vaccination would be considered cost-effective in Hong Kong, Malaysia and Singapore.

**INDIVIDUAL'S HEALTH – Patient-Reported Outcomes & Patient Preference Studies**

**PIH15**
PARTIAL REIMBURSEMENT OF ANTIVIRAL AGENTS FOR HBV: IMPACT ON ANTIVIRAL UTILIZATION AND COMPLIANCE
Quo Q1, Duan XW1, Li Y2, Yang LK1, Chen Y1, Li H1, Duan ZP1, Wang L2
1Peking Union Medical College & Chinese Academy of Medical Science, Beijing, China, 2Peking You’an Hospital of Capital Medical University, Beijing, China

**OBJECTIVES:** To determine the impact of partial reimbursement on antivirals which was implemented in July 1, 2011 on antiviral utilization and compliance for patients in Beijing. **METHODS:** Two separate cohorts were enrolled. These consisted 14,163 CHB outpatients who were referred to Beijing You’an Hospital during Jan 1, 2010 to Dec 30, 2010 and 16,228 between Jul 1, 2011 and Jun 30, 2012. **RESULTS:** Follow-up ended on November 30, 2012, respectively. Denominator-biased, routine biochemical and virological detection results, and antiviral prescription information were collected from electronic database. Antiviral utilization, medication possession, MPR, and persistence rate were compared between patients with medical insurance (PMI) and paid-out-of-pocket (POPO). Questionnaire survey was given to randomly sample 307 outpatients to confirm the validity of the electronic database. The mean value of blood serum alkaline phosphatase activity of adult with confidence interval (p=0.001) after propensity score matching. The antiviral utilization rate for PMI increased from 57.4 to 75.9% (p<0.102) after the reimbursement policy and the rate among FPO increased from 54.9 to 56.7% (p=0.026). A 5% increase (83.4%±23.4% vs. 88.7±19.4%), (p<0.001) in MPR was observed among PMI after reimbursement and an increase of under 2% was observed among FPO (83.7±24.2 vs. 85.2±23.1%), (p<0.005). About 71% of the patients had more than 80% MPR in each cohort before reimbursement. This increased to 79.8% (p<0.0001) and 73.0% (p=0.028) for PMI and FPO, respectively. PMI had a higher 6-, 12-, and 15-month persistence rate than FPO, especially for outpatients receiving ETV and ADV. The questionnaire with 100% respond rate showed that more than 90% outpatients only took antiviral medicine at You’an Hospital, supporting the validity of the electronic database. **CONCLUSIONS:** The new reimbursement policy showed a positive impact on antivirals utilization as well as compliance for insured CHB patients, especially for patients receiving ETV and ADV.

**PIH16**
JOINT MODELING OF PRIMARY AND SECONDARY NON-ADHERENCE OUTCOMES
Popkin A, Ceng I
Johns Hopkins University, Baltimore, MD, USA

**OBJECTIVES:** Medication non-adherence to chronic therapies may severely impair effectiveness of treatment. Non-adherence may occur at different stages in a patient's treatment. It may occur at the initial therapy if a patient receives the initial prescription but does not redeem it at a pharmacy (primary non-adherence), or it may happen after the patient fills a prescription at a pharmacy but fails to follow the instructions or fails to refill the prescription (secondary non-adherence). **METHODS:** The purpose of this study is to demonstrate that both primary and secondary non-adherence can be jointly described by a hurdle model, which has the interpretation as a two-part model. The first part is to model the probability of non-adherence for the secondary non-adherence model, and the second part is to model (Poison or negative binomial). The hurdle model is an example of the finite mixture models which can be fitted by SAS's new procedure FROC FMM. **RESULTS:** Data in this retrospective cohort study of medication non-adherence was obtained from blind computerized pharmacy records of a national retail pharmacy chain. Primary non-adherence was defined as a binary outcome representing failure to fill a prescription after the medication was primary (logistic regression) and secondary non-adherence (count regression) and combine them in a way that provides a better description of the data than a single-component models provide separately.

**PIH17**
A QUALITATIVE ASSESSMENT OF DOCTORS PERCEPTION TOWARDS THE QUALITY OF PHARMACUTICAL CARE SERVICES IN KHYBER PAKHTUNKHWA, PAKISTAN
Ashar S1, Murtaza G2, Kousar R3
1COMSATS Institute of Information Technology, Abbottabad, Pakistan, 2COMSATS, Abbottabad Pakistan, 3COMSATS, Abbottabad Pakistan

**OBJECTIVES:** The main objective of this study is to explore the perception of doctors regarding quality of pharmaceutical care services in Khyber Pakhtunkhwa, Pakistan. **METHODS:** A qualitative study design was adopted. A semi-structured interview guide was developed, through snowball sampling technique to face to face interviews were conducted until saturation point has reached till 15th doctors. **RESULTS:** About 71% doctors from public and private hospitals in Khyber Pakhtunkhwa, Pakistan who were interviewed from December to February 2014. The interviews were conducted at the doctor’s work-place. Written consent was obtained from the participants prior to the interview. **CONCLUSIONS:** Among the respondents interviewed, nine were male and six female doctors. They understood the concept of pharmaceutical care and patient compliance through pharmacists. The findings demonstrated the importance of pharmaceutical care provision would benefit the doctors and patient. Doctors were willing to collaborate with pharmacists because it will facilitate the doctors as due to time limit they are unable to do proper patient counseling. They have also shown positive response towards implementation of pharmacy practice which would definitely improve the patient compliance.

**PIH18**
REFERENCE VALUE OF BLOOD SERUM ALKALINE PHOSPHATASE IN MONGOLIAN ADULT
Shamjeergen G1, Dorj E2, Dorj G1, Gunchin B3
1School of Nursing, HSUM, Ulaanbaatar, Mongolia, 2School of Biomedicine, HSUM, Ulaanbaatar, Mongolia, 3Health Sciences University of Mongolia, Ulaanbaatar, Mongolia

**OBJECTIVES:** To determine the reference value of blood serum alkaline phosphatase of adult according to related age, sex, season and region. **METHODS:** In the research, totally 3742 people were conducted. The research was implemented and supported by central laboratory of Biomedical school, HSUM, “Mobio” laboratory of Korea and “Mega” laboratory. The research of serum alkaline phosphatase was made by the kinetic method which is confirmed by IFC and used the liquid reagent of Roche Hospitek diagnostics and Human firm. The research result was statistically analyzed with standard programming the SPSS statistic. **RESULTS:** The mean value of blood serum alkaline phosphatase activity of adult with confidence interval 0.05 was 90.0, for 0.95 level the mean value was for the male 81.7±8.0, (n=1597) U/L and for female 76.9±4.1 (n=2145) U/L. While determining the Interval for reference value of blood serum alkaline phosphatase activity adult with confidence interval P = 0.95, the mean value was for the male 81.7±8.0 (n=1597) U/L and for female 76.9±4.1 (n=2145) U/L. While determining the Interval for reference value of blood serum alkaline phosphatase activity adult with confidence interval P = 0.95, the mean value was for the male 81.7±8.0 (n=1597) U/L and for female 76.9±4.1 (n=2145) U/L. Blood serum alkaline phosphatase activity adult of Mongolian have dependence of sex (p<0.0001) and it was high for male. Also, serum alkaline phosphatase activity is varying (p<0.0001, r=102) depending on age. There is no dependence of activity of serum (p=0.43) appeared by region. **CONCLUSIONS:** Mean value of serum alkaline phosphatase activity is for people 70.50±0.63 U/L and minimum limit of reference value is 40.09-116.72U/L. The activity of serum alkaline phosphatase has deference from age and sex with confidence interval (p<0.001). For male high, for female low, weak direct dependence from age (r=0.102) and strong direct dependence from sex were discovered.

**PIH19**
ASSESSMENT OF UTILITIES IN JAPAN: DATA AVAILABILITY AND METHODOLOGY
Chen X1, Kim HK1, Crawford B1
1Adelphi Values, Tokyo, Japan, 2The University of Tokyo, Tokyo, Japan

**OBJECTIVES:** Utility data are important in health economic analyses, especially with the introduction of HTA in Japan in 2016. Given a paucity of information regarding the availability of data and related research methodologies used in Japan, this study aims to present a comprehensive literature review regarding utility assessment. **METHODS:** A total of 246 manuscripts were found using searching keywords and searching databases, 50 articles cited utility values from previous or overseas studies. Among original utility measurement studies EQ-5D and SD were the most frequently used methods.