impacts in children and is currently being evaluated for use in adults in the Czech Republic (CR). The objective of this study was to assess the cost-effectiveness of vaccination with PCV13, PPSV23 and no vaccination in the Czech Republic. PPSV23 effectiveness was derived from the PCV13 vaccine and was extrapolated from the impact in children and young adults for immunosenescence in older persons. Pneumococca, bacteriaemia and meningitis hospitalization and cost data were acquired from health authorities and DRG and other data were based on retrospective patient surveys. The model used a lifetime horizon and 3% discount rate. RESULTS: Using Czech guidelines, PCV13 vaccination is associated with 0.0002 life-years gained for an additional EUR 1,002 per QALY gained in total compared to PPSV23. This leads to an ICER of EUR/LYG 4,259 and 2,825 under current reimbursement for moderate and high risk people were vaccinated, the ICER would increase to EUR/LYG 5,915 and high risk people were vaccinated, the ICER would increase to EUR/LYG 3,582 under current reimbursement. If all moderate and high risk people were vaccinated, the ICER would increase to EUR/LYG 4,950 and 2,265 under current reimbursement. If all moderate and high risk people were vaccinated, the ICER would increase to EUR/LYG 5,582 and 2,265 under current reimbursement. If all moderate and high risk people were vaccinated, the ICER would increase to EUR/LYG 6,692 and 2,265 under current reimbursement. If all moderate and high risk people were vaccinated, the ICER would increase to EUR/LYG 8,676 and 7,057 under full reimbursement. CONCLUSIONS: Confronting the national GDP per capita with the WHO recommendation on health care spending per QALY gained, PCV13 national immunization program in the Czech Republic can be considered cost-effective even under a full reimbursement system.

PPI24

COST IMPACT OF A COMPREHENSIVE STI SCREENING STRATEGY, INCLUDING CHLAMYDIA, GONORRHEA AND TRICHOMONIASIS: A US PAYER PERSPECTIVE

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OBJECTIVES: To assess the cost-effectiveness of a hypothetical comprehensive sexual transmitted infection (STI) screening strategy, including Chlamydia (CT), gonorrhea (GC) and trichomoniasis (TV). Targeted CT/GC screening has long been supported by clinical guidelines (USPSTF, CDC, and ACOG) and research has shown screening to be cost-effective from a health-system perspective. Despite this, testing rates are low (estimated at 38% by the CDC). Here, we explore the clinical and economic impact of increasing adherence to screening guidelines for CT/GC and the introduction of TV screening from a payer perspective.

METHODS: A decision-tree cost-impact model was developed to compare current screening rates for CT/GC with a hypothetical increase in CT/GC screening uptake and the addition of TV screening in women 15-24yrs. with high-risk sexual behavior. Model components included testing, treatment, confirmation of eradication, and adverse events for women 15-24. Inputs were based on published literature. The additional cost-effectiveness of TV was modeled with high-risk sexual behavior.

RESULTS: For a hypothetical population member of 5,044, with a baseline CT/GC/TV prevalence of 4.7/2.2/8.4%, increasing CT/GC screening uptake by 10% and adding TV screening in women 15-24yrs. with high-risk sexual behavior.

CONCLUSIONS: Confronting the national GDP per capita with the WHO recommendation on health care spending per QALY gained, PCV13 national immunization program in the Czech Republic can be considered cost-effective even under a full reimbursement system.

PPI25

COST-EFFECTIVENESS OF VAGINAL PROGESTERONE GEL IN REDUCING PRETERM BIRTH: A DECISION ANALYTIC MODEL BASED ON THE PREGNANT RANDOMIZED CLINICAL TRIAL

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OBJECTIVES: To compare the cost-effectiveness and outcomes of vaginal progesterone gel in reducing preterm birth in women at high risk for preterm birth. This decision analytic model was developed to compare the effectiveness and costs of vaginal progesterone gel in reducing preterm birth (≥37 weeks) in a cohort of 3517 women at high risk of preterm birth. Costs were compared with a base case of no treatment, and base case incremental costs were $12,354 and an incremental benefit of VP was 0.042 PTB averted. The PSA indicated that VP gel is expected to be less costly and more effective than placebo in 79.2% of simulated cases, however, less costly but ineffective in 16.8% of simulated cases. VP gel is cost-effective in the prevention of PTB in women with a short cervix and no history of prior preterm birth. Results inform ongoing clinical controversies regarding the value of VP as a preventive modality for PTB.

PPI26

HEALTH ECONOMIC EVIDENCE IN SUPPORT OF A LONG-ACTING REVERSIBLE CONTRACEPTIVE METHOD: LNG-IUS-12, A LOW-DOSE CONTRACEPTIVE LEVONORGESTREL INTRATUBAL SYSTEM

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OBJECTIVES: LNG-IUS-12 is a low-dose hormonal intrauterine contraceptive system for up to 3 years of use. This analysis aimed to evaluate the cost-effectiveness of LNG-IUS-12 in comparison to short-acting reversible contraceptive (SARC) methods in a cohort of young women in the United States (US) from a third-party payer’s perspective. METHODS: A state-transition model was developed to assess cost-effectiveness of LNG-IUS-12 versus SARC methods over 3 years in 1000 women aged 20-29 years, the age group accounting for over half of all abortions in the US. SARC methods comprise oral contraceptives, ring, patch and injections – methods commonly used by this cohort. The model consisted of three mutually exclusive health states: initial method, unplanned pregnancy (UP) and subsequent method. Subsequent method is represented by a mixed model-weighted contraceptive ‘basket’. Failure and discontinuation rates were based on published literature. Unit costs were taken from standard US database sources and effectiveness data for SARC methods was obtained from the SARC market share database. The key model output was cost per UP avoided. One-way sensitivity analyses (OWSA) and probabilistic sensitivity analyses (PSA) were performed. RESULTS: LNG-IUS-12 dominated SARC, resulting in fewer UP (651.26 vs 378.97) and lower total costs ($1,274,295/USD vs $1,822,836/USD, a 43% savings) over 3 years. The costs associated with subsequent method used by women who initiated LNG-IUS-12 were lower ($107,587/USD vs $230,024/USD) due to lower failure and discontinuation rates of LNG-IUS-12. OWSA results were insensitive to variation in key input parameters. PSA results indicate a high probability of dominance as all iterations were less costly and more effective. CONCLUSIONS: Further studies should be done to show LNG-IUS-12 is a more cost-effective contraceptive option than SARC. Therefore, women switching from current SARC use to LNG-IUS-12 are likely to generate cost savings to third-party health care payers, driven primarily by decreased UP-related expenditures and long-term savings in contraceptive costs.

PPI27

COST-EFFECTIVENESS ANALYSIS OF MEDICAL MANAGEMENT OF INCOMPLETE MISCARRIAGES IN THE BAHAMAS

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OBJECTIVES: About 30% of all pregnancies end in first trimester and half of them present as an incomplete miscarriage. It is a significant health issue raising concerns about the mother’s health and complications of incomplete miscarriage in the Bahamian women. Surgical evacuation is the most commonly used treatment which involves operating theater and inpatient costs in cases of complications like cervical trauma, uterine perforation, hemorrhage and infection. The objective of this study is to conduct a cost-utility analysis of medical management (Misoprostol) versus surgical procedure in the management of incomplete miscarriages in the Bahamas, from a societal perspective.

METHODS: Cost and probabilistic sensitivity analyses were conducted using data from hospital data and published literature. Costs of medical and surgical management included direct & indirect costs viz. physician cost, procedure cost, cost of ultrasounds, drug cost, cost of hospital stay, complications & adverse events, loss of wages and cost of travel. Primary outcomes were treatment success and failure. A one-way sensitivity analyses were conducted by varying the cost and success by 25% & 15%, respectively. RESULTS: The CEA showed that, medical management (USD$19 per patient) was the least costly alternative to surgical procedure (USD$135 per patient). The incremental cost-effectiveness ratio (ICER) of medical management was - $1,416 and proved to be the dominant option being less expensive and having comparable treatment success. Results were sensitive to variations in costs by 15% & 25% and success by 15%, indicating dominance of medical management suggesting being less expensive both to the patient as well as to the payer. CONCLUSIONS: From a societal perspective, medical management appears to be the least costly approach for the treatment of incomplete miscarriages in the Bahamian women and should be considered as the first line medical management. Further investigations are needed to obtain costs savings on long-term horizon.

PPI28

COST-EFFECTIVENESS ANALYSIS OF USING LEVONORGESTREL-RELEASING MICROSCOPIC MIRE IN LONG-TERM CONTRACEPTION IN COLOMBIA

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OBJECTIVES: To evaluate the cost-effectiveness of levonorgestrel-releasing intrauterine device (LNG-IUS) as a long-term contraceptive method compared with other similar methods, from the state perspective. METHODS: A Markov chain model is developed to evaluate pregnancies avoided as outcome of interest. The model was built in monthly cycles at a five-year time horizon for a hypothetical cohort of 1,000 women of childbearing age and includes probabilities of
pregnancy, ectopic pregnancy, suspension because bleeding and other causes, and other adverse events by using either LNG-IUS, etonogestrel implants, levonorgestrel implants or copper T (last-two included in health care plan). Effectiveness and adherence were taken from published studies and the costs were taken from database of patients in Colombia and are expressed in Colombian pesos (COP). An expert gynecologist reviewed the results of the simulations expected in 5% by calculating the cost assigned by the public health care system in Colombia to health care during the first five years of life of children and cost of delivery care. A sensitivity analysis was developed using a Monte Carlo simulation and a Tornado analysis. RESULTS: TOTAL of 113.87 pregnancies occurred with using LNG-IUS as compared with 40.39 using Copper T, 30.08 using etonogestrel implant, and 29.55 using levonorgestrel implant for the base case analyzed. Cost of LNG-IUS arm was COP 12,590, COP 54,163 and COP 12,590 with copper T and with levonorgestrel implant ($43,502, $171,158, $43,502 respectively). Applying a discount rate of 3% LNG-SIU was dominant versus implant etonogestrel and very cost-effective compared with levonorgestrel implant ($CER$ $63,951, $63,951, $63,951 respectively). Sensitivity analyses confirm that LNG-UIS keeps its benefits against etonogestrel and levonorgestrel in most cases. CONCLUSIONS: The use of LNG-UUS would be an adequate option for patients seeking a long-acting contraceptive method and its use could be envisaged by the health-care system due to its cost-benefits in Colombia.

**PHS29**

**COST-EFFECTIVENESS OF PROPHYLAXIS OF RESPIRATORY SYNCTIVAL VIRUS INFECTION (RSV) WITH PALIVIZUMAB IN PRETERM INFANTS IN COLOMBIA**

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**OBJECTIVES:** Infection due to respiratory syncytial virus (RSV) is usually transient and leaves no sequelae; however, in infants with risk factors such as prematurity, bronchopulmonary dysplasia, congenital heart disease or infections, it may result in serious and, in some cases, fatal outcomes. Some observational studies support the likelihood of an association between RSV and asthma. According to the Colombian Medical Federation, palivizumab was one of the ten most expensive drugs for the Colombian health system ($US43.6 million in the first five years of life 2008-11). The aim of this study was to evaluate the cost-effectiveness of palivizumab for the treatment of RSV infections in pre-term (<35 weeks) infants in Colombia. METHODS: We designed a decision tree model using local epidemiological data, effectiveness and safety, as well as QALYs, obtained from the scientific literature. We used the third-party player perspective and a 3% discount rate for costs and long term outcomes. The time horizon was the lifetime of the patients. RESULTS: In our base case model, compared with no prophylaxis palivizumab showed on average an increase in costs per child of $US4,895, with 0.1645 QALYs gained, resulting in an incremental cost-effectiveness ratio of $25,760 per QALY (our per capita GDP is $US723). Other outcomes of importance in the model were: US$59,962 per asthma case averted, US$1,087,884 per life saved and US$75,084 per hospitalization averted. The price of palivizumab should be decreased 32% to reach the cost-effectiveness threshold of 3-times the per capita GDP. CONCLUSIONS: Under the assumptions and results of our study, palivizumab is not a cost-effective intervention and should not be recommended for routine immunization in preterm infants of 35 weeks gestational age or less, with or without bronchopulmonary dysplasia in Colombia.

**PHS30**

**COST MINIMIZATION COMPARISON OF DARUNAVIR + RITONAVIR (DRV+RTV) TO LOPINAVIR/ RITONAVIR (LPV/RTV) IN HIV-1 INFECTED TREATMENT-NAIVE WOMEN OF CHILD BEARING AGE (WOCBA)**

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**OBJECTIVES:** HIV guidelines consider LPV/r a preferred protease inhibitor for use in treatment-naive pregnant women. However, no studies have compared the costs of the two treatment regimens in South American women, and only one treatment-naive woman in a study from South Africa. We designed a decision tree cost-minimization model to compare the costs of LPV/RTV versus DRV+RTV in women of childbearing age with HIV-1 infection. METHODS: We analyzed the costs and utilities of a hypothetical cohort of pregnant women who were switched to LPV/r versus DRV+RTV. Costs were based on local medical resource use and a Tornado analysis was performed to assess the robustness of the results. RESULTS: DRV+RTV switched to LPV/r upon pregnancy, savings per patient were reduced $43,502 per patient savings at 10 years). If 100% of patients who initiated DRV+RTV switched to LPV/r in 6.3 years, total cost savings would be $5,890 (average charges of $17,645). This is compared to average cost of $3,860 (average charges of $10,106) for all vaginal deliveries. Hospital cost for cesareans after failed induction averaged $29,700 (average charges of $21,875) for all cesarean sections. Average length of stay for failed induction with cesarean was 4.42, compared to 3.8 days with vaginal deliveries without complications. CONCLUSIONS: Failed medical induction is associated with increased risk of cesarean delivery, and associated increased hospital resource use, and expenditure in delivery. Preventing complications with induction may substantially reduce health care costs and resource utilization.

**PHS31**

**VALUE IN HEALTH 16 (2013) A1-A298**

**INDIVIDUAL’S HEALTH – Patient Outcomes & Patient Preference Studies**

**PHS32**

**VARIATION IN COST-RELATED MEDICATION NON-COMPLIANCE WITH FUNCTIONAL DEFICIENCY AND FREQUENCY OF HOSPITALIZATION AMONG US ELDERLY**

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**OBJECTIVES:** Cost-related medication non-compliance (CRN) is a persistent issue that negatively impacts the effectiveness of medical intervention. This study aims to evaluate the variation of CRN with functional deficiencies and with frequency of hospitalization among the US elderly using a nationally representative data set. METHODS: Health Retirement Survey (HRS) 2010 was used to assess CRN, deficiencies in Activities of Daily Living (ADL), Instrumental Activities of Daily Life (IADL), and frequency of hospitalization over the past 2 years (0, 1, 2, 3, 4 or more). CRN was assessed based upon self-reported non-compliance after performing bivariate analyses of the association between ADLs/IADLs, hospitalizations, insurance coverage, self-reported monthly out-of-pocket (OOP) payments of prescription drugs and CRN, a logit model was used to assess the relationship between CRN and associated rates (12.7%) out of 22,042 elderly reported CRN over a period of 2 years. Those reported CRN has a mean ADL deficiencies 0.79 (p.d. 1.43) versus those who did not 0.48 (p.d. 1.16) (p<0.001), and a mean IADL deficiencies 0.53 (p.d. 0.97) versus those who did not 0.38 (p=0.004). According to the Colombian Medical Federation, palivizumab was one of the ten most expensive drugs for the Colombian health system ($US63.6 million in the first five years of life 2008-11). The aim of this study was to evaluate the cost-effectiveness of palivizumab for the treatment of RSV infections in pre-term (<35 weeks) infants in Colombia. METHODS: We designed a decision tree model using local epidemiological data, effectiveness and safety, as well as QALYs, obtained from the scientific literature. We used the third-party payer perspective and a 3% discount rate for costs and long term outcomes. The time horizon was the lifetime of the patients. RESULTS: In our base case model, compared with no prophylaxis palivizumab showed on average an increase in costs per child of $US4,895, with 0.1645 QALYs gained, resulting in an incremental cost-effectiveness ratio of $25,760 per QALY (our per capita GDP is $US723). Other outcomes of importance in the model were: US$59,962 per asthma case averted, US$1,087,884 per life saved and US$75,084 per hospitalization averted. The price of palivizumab should be decreased 32% to reach the cost-effectiveness threshold of 3-times the per capita GDP. CONCLUSIONS: Under the assumptions and results of our study, palivizumab is not a cost-effective intervention and should not be recommended for routine immunization in preterm infants of 35 weeks gestational age or less, with or without bronchopulmonary dysplasia in Colombia.

**PHS33**

**EXISTING STATE UTILITIES VALUES FOR POST-MENOPAUSAL WOMEN FROM THE WOMEN’S HEALTH INITIATIVE ESTROGEN+PROGESTIN CLINICAL TRIAL**

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**OBJECTIVES:** The Women’s Health Initiative (WHI) estrogen+progestin (E+P) clinical trial provides a large sample to estimate health state utilities values for post-menopausal women in the United States. To facilitate future health economic evaluations in this large population sub-group, we estimated utilities for trial participants stratified by age group (50-59, 60-69, 70-79) and randomization assignment (+ or placebo). METHODS: We measured health utility values for participants in the E+P arm of the WHI clinical trial for the Short Form 6D (SF-6D) utility index using a validated Bayesian mapping algorithm and U.S. weights. We calculated cross-sectional mean baseline and 1-year utilities, and mean weighted patient utility change from baseline to 1-year. Results were included in the baseline analysis completed the SF-36 within 7 days of randomization, and...