obtained from published literature. Resource utilization and costs associated with managing vision loss and eye examination were obtained from Health PEI, Ontario Ministry of Health and Long-term Care, and published literature. A decision analytic model was used to estimate an incremental cost-effectiveness ratio (ICER). Costs were expressed in 2012 Canadian dollars. A series of sensitivity analyses, including one-way and two-way sensitivity analyses, was performed to assess the possible uncertainty and robustness of our findings. **RESULTS:** Compared with non-insured eye examination, insured eye examination for PEI residents led to an annual gain of 0.01 quality adjusted life year (QALY) and an incremental cost of $5.52 per person, yielding an ICER of $2,785 per QALY. Sensitivity analyses showed that cost-effective estimates were highly sensitive to the incidence of vision loss, rate of eye examination by optometrists, and utility of vision loss. Specifically, higher incidence of vision loss and greater rate of eye examination by optometrists offered lower cost-effectiveness ratios. **CONCLUSIONS:** Insured eye examination for PEI residents was a highly cost-effective option compared to non-insured eye examination. This intervention was even more cost-effective if greater proportion of PEI residents received the eye examination by optometrists and if the incidence of vision loss in PEI increased.

PHS52

ECONOMIC EVALUATION OF A NEPHROPROTECTION PROGRAM IN PATIENTS OF THE MEXICAN INSTITUTE OF SOCIAL SECURITY WITH CHRONIC KIDNEY DISEASE

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OBJECTIVES: Clinic evidence shows that nephroprotection programs in patients with chronic kidney disease improve patient's health, life expectancy and reduce hospitalizations and early deaths. In Mexico, there are few nephroprotection programs. The purpose of this study was to analyze a nephroprotection program in patients of the Mexican Institute of Social Security with chronic kidney disease aimed to improve life expectancy and to reduce hospitalizations and early deaths. **METHODS:** The study design was a cost-effectiveness analysis from the governmental perspective. All the costs were obtained from the Diagnosis-related groups that Mexican Institute of Social Security publishes. Costs were expressed in 2013 constant USD. A Markov model with forty eight monthly cycles was used. We considered five chronic kidney disease stages according to US National Kidney Foundation and also death stage. Parameters were obtained from other nephroprotection programs and also from the Mexican Institute of Social Security statistics. Years life gained, hospitalizations and early deaths avoided ICER were estimated and discounted at 5% annual rate. Univariate sensitivity analysis for costs was performed. Also we conducted budget impact analysis. **RESULTS:** The nephroprotection program was cost-saver for cost per year life gained (ICER= $-1,477) and for hospitalizations avoided (ICER= $-4,984) and cost-effective for early death avoided (ICER=$22,738). The program increases thirteen months life expectancy, reduces 50% hospitalizations and avoids 21,118 deaths in a four-year horizon. The hospitalizations avoided also allow increasing hospital supply in 67%. The budget impact analysis showed that the program could achieve savings of 42% for the Institute. **CONCLUSIONS:** The nephroprotection program could improve patient's health and reduce disease progression, therefore, it could be considered for implementation in the Mexican Institute of Social Security.

PHS53

COST AND EFFECTIVENESS OF AN EYE CARE ADHERENCE PROGRAM FOR SCHOOL CHILDREN WITH SIGNIFICANT VISUAL IMPAIRMENT

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OBJECTIVES: The follow-up rate among children with vision problems in our outreach programs has been poor (<5%). We therefore developed the Children's Eye Care Adherence Program (CECAP) for Philadelphia school children, a social worker (SW) intervention to address barriers to care among children with significant vision problems. The objective of this study was to measure CECAP's effectiveness and cost. We also sought to identify barriers to care through a conceptual framework and geomapping software. **METHODS:** CECAP included SW review of records to identify children needing follow-up. SW phoned families to identify and resolve barriers to eye care and scheduled appointment. Effectiveness was defined as the percent completing ≥1 follow-up visit within the physician-recommended time frame. Cost was measured using SW time logs (converted to costs using SW wage rates + benefits) and additional materials (forms, postage, phone charges). Barriers were organized into a conceptual framework depicting 3 main themes (predisposing factors, system factors, and ability to pay) and mapping software to visually illustrate follow-up rate. **RESULTS:** Of 1200 patients, 120 required follow-up ophthalmic care in 2012-13. 71 patients were reached and completed a follow-up (59.2%); 49 patients were reached but did not follow-up (40.8%). SW time was ~3hrs/patient for those who followed up and ~2hrs/patient for those that did not. Based on the CECAP program total cost ($14,249) and the reimbursement payment ($6,265.66), the net cost of the CECAP program was $7,983.59. Predisposing factors (lack of awareness, level of perceived importance, conflict of commitment, lack of means of communication) was the primary barrier theme for patients that did not follow-up. **CONCLUSIONS:** CECAP significantly improved adherence to eye care but comes at an additional cost. Future efforts should focus on reducing operational efficiencies (e.g., capping outreach attempts) and targeting CECAP based on predictors of follow-up.

PHS54

COST-EFFECTIVENESS OF A CARE PROGRAM FOR HIV/AIDS PATIENTS INSURED BY A HEALTH MAINTENANCE ORGANIZATION IN COLOMBIA COMPARING THREE HEALTH CARE PROVIDERS NATIONWIDE

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OBJECTIVES: HIV/AIDS prevalence in Colombia is 0,8%. Currently for the country is important to assess the effectiveness and impact of its practices on the health of its population. A health maintenance organization (HMO) with national coverage aims to contribute by assessing the health outcomes of its care program for HIV/AIDS patients, a high cost disease with great impact on HRQOL. To evaluate the cost-effectiveness of the care program for HIV/AIDS patients insured by a HMO in Colombia, comparing its results in three health care providers (HCP). **METHODS:** A Markov model in MS Excel® was built to represent the natural history of HIV/AIDS based on the staging of the disease given by WHO according to the CD4 lymphocytes level. Direct costs were included, according to the information available on HMO´s databases. The outcome measure were QALY's taken from the literature. Transition probabilities were calculated from tracking a cohort of 884 HIV/AIDS patients over 18 years old, from three health providers (HCP A, B and C) in 7 cities across the country, during 2011 and 2012. Time horizon was lifetime. Perspective was third payer. Deterministic and probabilistic sensitivity analysis were performed. **RESULTS:** HCP C was dominated. HCP A versus HCP B ICER was USD$2.497 per life year gained and USD$3.674 per QALY. Annual average cost per patient by stage was: stage 1 USD$2.347, USD$2.281 stage 2, stage 3 USD$3.022, USD$4.103 stage 4 and USD$6.994 for stage 5. **CONCLUSIONS:** Given a willingness to pay 1 GDP per capita for the country, the HCP B is a very cost-effective option. The average annual cost of patients in stage 5 is three times stage 1. **PRIMARY FUNDING SOURCE:** health maintenance organization (HMO).

PHS55

COST-EFFECTIVENESS OF BREAST MRI AND MAMMOGRAPHY FOR SCREENING HIGH RISK POPULATION

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OBJECTIVES: Breast magnetic resonance imaging (MRI) is a sensitive method of breast screening and is increasingly being used for detection of breast cancer among high risk young women. However, the specificity of breast MRI is relatively low and costs are quite high. The purpose of this study was to determine if breast MRI is a cost-effective approach for the detection of breast cancer among young women at high risk. **METHODS:** A Markov model was built up to compare annual breast cancer screening with either breast MRI or mammography among young women who have more than 15% lifetime risk of breast cancer. Data from published studies provided probabilities for the model inputs. All costs and benefits were discounted at 5% per year. The analysis was performed from societal perspective with results reported in 2013 U.S. dollars. One-way and net benefits sensitivity analyses addressed uncertainty in model parameters. **RESULTS:** Breast MRI provided 19.38 discounted quality-adjusted life-years (QALYs) at a discounted cost of $37,765 while mammography provided 19.14 QALYs at a cost of $23,226 over 30 years of screening. The incremental cost-effectiveness ratio of breast MRI compared to mammography was $59547/QALY. In one-way sensitivity analysis and net benefits sensitivity analysis, the cost-effectiveness or net benefits of MRI screening depends critically on the accuracy of both MRI and mammography. **CONCLUSIONS:** Annual MRI screening of women who have more than 15% lifetime risk of breast cancer was found to be potentially cost-effective, with an ICER of $59547/QALY when compared to annual mammography alone. The benefits of early detection of breast cancer with MRI in this population may outweigh the added cost of screening and the higher risk of false positives. However, the cost-effectiveness of MRI screening is highly dependent on the accuracy of MRI and Mammography. There remains some statistical uncertainty around this result.

PHS56

THE COST-EFFECTIVENESS OF ANTENATAL SYPHILIS SCREENING USING POINT-OF-CARE TESTING IN LOW AND MIDDLE INCOME COUNTRIES IN ASIA

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OBJECTIVES: Untreated syphilis in pregnancy is associated with adverse clinical outcomes to the infant. In low and middle income countries in Asia, roughly one out of three women is not tested for syphilis during pregnancy. The objective of this analysis was to evaluate the cost-effectiveness, budget impact, and potential reduction in adverse pregnancy outcomes of antenatal syphilis screening using the recently introduced point of care immunochromatographic strip (ICS) test for 11 select countries in Asia. **METHODS:** A previously published cost-effectiveness model was adapted to reflect the perspectives of the respective national health care systems. Clinical outcomes of infants born to syphilis-infected mothers on the endpoints of stillbirth, neonatal death and congenital syphilis were obtained from published sources. Treatment was assumed to consist of three injections of benzathine penicillin. Country-specific inputs included the antenatal prevalence of syphilis; annual number of live births; proportion of women with at least one antenatal care visit; per capita gross national income and estimated hourly nurse wages. **RESULTS:** In all 11 Asian countries, syphilis screening is highly cost-effective with an weighted average cost/DALY averted of US$82 (range: US$22-US$518). Universal screening may reduce the annual number of stillbirths by up to 10,000, neonatal deaths by up to 4,000, the annual incidence of congenital syphilis by up to 5,000 and avert up to 450,000 DALYs at an incremental annual direct medical cost of US$23.0 million. Due to its low screening rate of 0.1%, Indonesia accounts for almost 50% of DALYs that could be averted. In contrast, Laos, Malaysia, and Thailand are close to universal screening and leave little room for improvement. **CONCLUSIONS:** The use of ICS tests for antenatal syphilis screening is highly cost-effective in low and middle income countries in Asia. Antenatal programs should either expand or maintain full access to syphilis screening using the ICS test.

PHS57

ECONOMIC EVALUATION OF A COMPREHENSIVE CARE AT HOME PROGRAM IN PATIENTS OF THE MEXICAN INSTITUTE OF SOCIAL SECURITY WITH MULTIPLE SCLEROSIS

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