found to have adequate knowledge and practice. Significant associations were noted for knowledge-practice groups with parent’s age, education level, and family income (p<0.05). CONCLUSIONS: Understanding parents’ knowledge and practice is an important factor in order to improve immunization uptake and timeliness. Educational interventions targeting parents with inadequate knowledge and practice about childhood immunization are needed.

PHI9 PRÉVALENCE AND PREDICTOR OF ANTIDEPRESSANTS DURING PREGNANCY IN THE US: AN HANES STUDY

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OBJECTIVES: Women of childbearing age are more likely to suffer from depression and anxiety disorders. Maternal depression has been associated with adverse birth outcomes such as preterm delivery, low birth weight/small for gestational age, etc. The objective of this study is to determine the prevalence of antidepressant utilization in pregnant women (ii) to identify factors associated with the use of antidepressants during pregnancy. METHODS: We used data of 1428 United States women (age ≥ 20 years) who participated in the National Health and Nutrition Examination Survey (2005-2006) and were pregnant. Analysis was carried out on the women who were interviewed after the delivery of the newborn and had stated that they were pregnant at the time of the interview. Antidepressant utilization was assessed as reported by the study participants. Logistic regression models were used to identify factors associated with receiving an antidepressant during pregnancy. RESULTS: The prevalence of antidepressant use increased from 3.1% to 9.7% in 2001 to 2012 (p<0.01). Among those women who reported using antidepressants 15-45% had a diagnosis of clinical depression. Selective Serotonin Reuptake Inhibitors (SSRIs) were found to be the most commonly prescribed class of antidepressants (78.9%). Race was found to be a strong predictor of antidepressant use, Non-Hispanic White women were found to be 2.7 times more likely to use antidepressants compared to other races (OR = 3.1; 95% CI 1.95 – 4.56). The other factors found to be significantly associated with antidepressant use were age, diagnosis of depression, and education. CONCLUSIONS: Utilizing self-report during pregnancy has increased in the past decade specially the use of SSRIs. The prescription of antidepressants varies significantly by age, race, and education. Although an increase in antidepressant use potentially signifies treatment of maternal depression, it stresses the need for clinical guidelines to treat maternal depression.

PHI10 DEVELOPMENT, VALIDATION, AND ANALYSIS OF A LINEAR REGRESSION MODEL PREDICTING CHILD’S BIRTHWEIGHT FROM MOTHER’S RACE, EDUCATION LEVEL, SMOKING STATUS, AND GESTATION AGE

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OBJECTIVES: Birthweight is a strong predictor of an individual baby’s survival as well as overall infant mortality and low birthweight is associated with adverse health outcomes. This study utilized a linear regression model to predict a child’s birthweight from the mother’s race, education level, smoking status, and gestation age. METHODS: A publically available database of births in Philadelphia, PA from 1990 to 1995 was used. Details on five variables: mother’s race, years of education, age, and smoking status during pregnancy, and gestational age (weeks) and birthweight (grams). The dataset was randomly divided into 2 subsets for model development and validation. The model was then developed against the validation dataset, verified against the validation dataset, and refitted to the entire sample to generate the final results. RESULTS: The final fitted model was: Y = b0 + b1x1 + b2x2 + b3x3 + b4x4 + b5x5 (where x1 = race, x2 = education, x3 = smoking status, x4 = gestational age, and Y = birthweight). Age was included as a covariate. The results showed that race significantly affected birthweight. The coefficient of the birthweight was 0.160 (p<0.0001) which indicates that a single unit increase in race increases birthweight by 0.160. Conclusions: Birthweight is a strong predictor of an individual baby’s survival as well as overall infant mortality and low birthweight is associated with adverse health outcomes.

PHI11 ASSOCIATION OF OUTDOOR AIR POLLUTION AND STILLBIRTH RISK IN ULAANBAATAR, MONGOLIA

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OBJECTIVES: There is an increasing trend of stillbirth in Mongolia for the last few years and Ulaanbaatar city is the 2nd most polluted city in the world by WHO. This study was designed to estimate the association of outdoor air pollution and stillbirth risk in Ulaanbaatar. Methods: This was a case-control study. The case group consisted of 909 stillbirths and the controls included 1597 2nd live births from singletons born in 2008 in Ulaanbaatar. Air quality data between January 2007 and December 2013 was obtained. Association between air pollution and stillbirth was determined using Logit regression. Odds ratios were estimated per 10-ppb change for nitrogen dioxide (NO2), sulfur dioxide (SO2) and for particulate matter with aerodynamic diameter < 2.5 μm (PM2.5) and 10-ppb change for carbon monoxide (CO) during different gestational periods. RESULTS: Average duration of gestation for stillbirths were 24.7 weeks whereas for live births average duration was 38.5 weeks (p<0.0001). 28.2% of stillbirths occurred in spring. Stillbirth risk increased in association with 10-ppb change for SO2 in all trimesters (OR=1.01; CI 95% 0.99-1.03). Stillbirth risk also increased in association with 10-ppb change for NO2 in first-trimester (OR=1.01; CI 95% 0.96-1.07). 100-ppb change for CO during all trimesters of gestation increased risks of stillbirth (OR=1.01; CI 95% 0.98-1.04). There was an increased risk of stillbirths in association with 10-ppb change for PM10 in first-trimester (OR=1.02; CI 95% 0.99-1.04). CONCLUSIONS: Exposure to outdoor air substances may increase the risk of stillbirth, and that the most susceptible time periods for exposure are during the first trimester of gestation.