found to have adequate knowledge and practice. Significant associations were noted for knowledge-practice groups with prenatal care, 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.

PIH3

PREVALENCE 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/size for gestational age, etc. The objectives of this study are (i) to determine the percentage of 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 (NHANES) from 2001-2012 (NHANES is a continuous health examination survey of the US population) and who were known to be 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 antidepressant utilization in pregnant women.

RESULTS: 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 2.47 times more likely to use antidepressants as 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: Utilization of antidepressants during pregnancy increased in the last 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.

PIH10

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 2015 was used. Women were included if they were over five years of age, were pregnant, 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 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 + b2X3 + b3X4 + b4X1X3 + b5X2 + b6X1X2 + b7X4 + b8X1X4 + b9X1X2X4 + b10X1X2X4 + b11X1X2X4X5 (where Y = birthweight, X1 = mother’s race, X2 = mother’s education, X3 = mother’s smoking status, X4 = gestation age). The formula is: birthweight = 316.59 + 210.31X1 - 227.22X2 - 95% CI: [-414.16, -219.02], p < .001).

CONCLUSIONS: Epidemiologists can use this linear regression model to predict birthweight of a child based on factors such as race, smoking status, education level, and gestation age.