EXAMINATION OF FACTORS RELATED TO ASTHMA AMONG AFRICAN AMERICAN CHILDREN 0-18 YEARS PARTICIPATING IN THE MISSISSIPPI MEDICAID PROGRAM (2003-2004)

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Abstract: Childhood asthma accounts for about 200,000 hospitalizations and 658,000 ED visits annually in the U. S. In Mississippi, between 2003 and 2004, most of the ED visits occurred among individuals between the ages of 0 and 4 years. The estimated ED visit rate among this group was 95 ED visits per a population of 10,000. Medicaid insured children are commonly prescribed fewer inhaled corticosteroids and reported increased use of short-acting β-agonists, barriers to obtaining asthma medications and difficulty with scheduling outpatient follow-up care. Proper treatment can result in fewer symptoms, ED visits, and hospitalizations because of asthma. The purpose of this study was to: 1) determine if African Americans who utilized Medicaid services in Mississippi received appropriate pharmacological therapy consistent with the 1997 National Asthma Education and Prevention Program (NHLBI) guidelines compared to whites in the program; and 2) assess whether non-compliance with the guidelines is related to increased asthma-related ED care and hospitalizations among African American children between 0-18 years compared to white children between 0-18 years who utilized Medicaid health benefits from 2003-2005. Secondary data were obtained from the Division of Medicaid, collected between 2003 and 2004, of children, age 0 to 18 years in Mississippi using purposive sampling since it was a predefined population. Descriptive statistics were used to determine asthma prevalence, demographics (age, sex, and race or ethnicity), utilization of health care services, and asthma medication use. Estimated prevalence and rates of utilization of asthma-related health care services, such as outpatient and ER visits and hospitalizations, were determined for gender and racial groups. For all inferential statistical procedures, the alpha level was set at p<0.05. For dichotomous variables (0 or 1), chi-square analysis was used. Multivariate logistic regression analysis helped to determine the relationships between the dependent variables and independent variables. Data analysis showed that persistent asthma was highest among African American males in the study between 0 and 4 years. African American children had the highest number of inpatient, outpatient and emergency department visits. Males had more inpatient, outpatient and emergency department visits compared to females. Asthma medication usage not in accordance with established NHLBI guidelines is associated with increased asthma health care service utilization among Medicaid enrollees. Therefore, strategies to reduce the burden of asthma should include health care provider education and training to improve the use of clinical guidelines for asthma management and to improve health-care provider skills regarding asthma patient education, especially among high risk patients.

Key words: asthma, childhood asthma, Medicaid asthma, asthma utilization rates