OBJECTIVE: To examine the influence of race and having an asthma management plan on the impact of experiencing asthmatic episodes.

METHODS: This study utilized the 2002 and 2003 National Health Interview Survey to conduct a retrospective study and secondary data analysis. Univariate, bivariate, and multivariate analysis was performed to examine physician asthma management plan recommendations among minority and non-minority children in the United States.

RESULTS: Most of the study participants (59%) reported not having an asthma management plan. Children who experienced an asthma episode in the past 12 months were less likely to have an asthma management plan (OR .51, P=.0001). In the multivariate analysis, Whites were significantly more likely than were Blacks and Hispanics to have an asthma management plan (OR 1.66, P=.0031).

CONCLUSIONS: Findings from this study indicate that Black and Hispanic children with asthma are less likely to have an asthma management plan, and children with an asthma management plan are less likely to have had asthma episodes in the past 12 months. Requiring all insurers to provide an asthma management plan to children with asthma may reduce these race-based inequities. (Ethn Dis. 2008;18:225–227)

KEY WORDS: Public Health, Asthma, Racial Disparities, Adolescent Health Services, Health Services, Quality of Health Care

INTRODUCTION

Asthma is one of the leading chronic illnesses among children in the United States. Since the 1970s, the prevalence and severity of asthma have increased; >5 million children in the United States have asthma, and in 2002 childhood asthma was associated with 5.8 million visits to a doctor’s office, 867,000 emergency department visits, and 89,000 hospitalizations each year.1

Asthma is more prevalent and severe among Black children than among White children in the United States.2 Several national studies have documented disparities in childhood asthma among Black and White children, and these disparities have increased since the 1980s.2 African American children have an annual asthma hospitalization rate of 74 per 10,000, compared to 21 per 10,000 in White children, and an asthma death rate of 11.5 per million, compared to 2.6 per million in White children.2

Illnesses and death associated with asthma are largely preventable, especially when patients have access to quality healthcare services and are well educated about the disease.3 In 1991 national standards were developed (revised in 1998) by the National Heart, Lung, and Blood Institute that recommended physicians provide asthma patients with guidelines to improve the home management of asthma exacerbations; these guidelines included having a written asthma action plan with information on what to do at home, when to call the clinician, and when to seek emergency care.4 Asthma management plans are an essential component for long-term treatment of asthma and self-management, and written asthma management plans are associated with reduced morbidity, fewer hospitalizations, and increased quality of life.5–6

The aim of this study was to examine the effect of having an asthma management plan on asthmatic episodes. This study will also assess the influence of race and other demographic characteristics on asthmatic episodes and having an asthma management plan.

METHODS

This study used 2002 and 2003 National Health Interview Survey data to conduct a retrospective study and secondary data analysis.7 The independent variables were age, race, sex, parental income, region, parental education, health status, health care utilization, source of health care, and health insurance coverage, and the outcome variables were asthma management plan status and asthmatic episodes. The other outcome variable, asthmatic episodes, is defined as number of episodes in last 12 months. Additional variables of interest included whether the patient was advised to change environment for asthma, whether the patient had ever taken preventive asthma medications, and number of emergency department visits due to asthma.

SAS version 8.2 was used to process the data initially.8 To account for the