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Black children in US six times more likely to die of asthma

The study, “Where Do Children with Asthma Die? A National Perspective from 2003 to 2014,” designed to determine which demographics of children are dying due to asthma and where in the United States, has found that black children are six times more likely to die of asthma than white or Hispanic children. Led by Anna Chen Arroyo, MD, MPH, of Brigham and Women’s Hospital, the findings were presented at the annual meeting of the American Academy of Allergy, Asthma & Immunology (AAAAI) in March 2017.

Higher mortality rates

Arroyo and colleagues used the National Center for Health Statistics’ Mortality Multiple Cause-of-Death public use data provided from 2003 to 2014 to examine records for 2,571 children aged less than 19 years whose underlying cause of death was reported to be asthma. They also evaluated the children’s age, sex, race and ethnicity. In studying locations of pediatric asthma death, sites were categorized in three sections: out-of-hospital (home or dead on arrival), outpatient (emergency department or clinic) and inpatient.

The findings showed the annual mortality rate for black children (9.29 per 1,000,000 persons) was six times higher compared to Hispanic (1.54 per 1,000,000) and white children (1.28 per 1,000,000). An outpatient setting

was listed more frequently as place of death (51%) than inpatient (30%) and out-of-hospital (14%) locations. Outpatient asthma deaths were more common among black children (59%) than white (24%) and Hispanic children (12%), while out-of-hospital asthma deaths were also disproportionately more common in black children (50%) compared to white (35%) and Hispanic children (10%).

More deaths in all locations

“It has been known for some time that black minority children are hospitalized more and die more from asthma compared to white children,” Chen Arroyo said at a press conference. “As significant efforts have been spent on reducing pediatric asthma health disparities, we were interested in looking at where children die: out of the hospital, in the emergency room or clinics, or in the hospital. Unfortunately, we found that black children continue to die at a rate six to seven times higher than white or Hispanic children, which did not significantly decrease over the study period. When we looked at differences in the location of death across different racial and ethnic groups, we found that there was a higher proportion of black children dying in all three settings.”

The need for timely intervention

“Deaths from asthma, especially among children, are sentinel events

that can be avoided with timely intervention,” continued Chen Arroyo. Possible factors that contribute to a higher number of deaths among black youth are “access to care, environmental factors that trigger asthma exacerbations, or inherently more severe disease in these children.”

“The location of death reflects the amount of medical interventions that were provided prior to the child’s death, implying differential access to care and suggesting where we need to focus on future efforts and interventions.”

References

Chen Arroyo AJ, et al. Abstract 283, Presented at the American Academy of Allergy, Asthma & Immunology Annual Meeting, March 3-6, 2017.

This article was compiled from: AAAAI 2017, Black children six times more likely to die of asthma, March, 4, 2017.

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