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**Title:** Ethnic diversity in having pets at home in families with asthma

Prof. Shahid 9761 Sheikh shahid.sheikh@nationwidechildrens.org MD <sup>1</sup>, RN. Judy 9762 Pitts judy.pitts@nationwidechildrens.org <sup>1</sup>, RN. Nancy 9763 Ryan-Wenger nancy.ryan-wenger@nationwidechildrens.org <sup>2</sup> and Prof. Karen 9764 McCoy karen.mccoy@nationwidechildrens.org MD <sup>1</sup>. <sup>1</sup> Division of Pulmonary Medicine, Department of Pediatrics, Nationwide Childrens Hospital / Ohio State University, Columbus, OH, United States, 43205 and <sup>2</sup> Department of Nursing Research, Nationwide Childrens Hospital, Columbus, OH, United States, 43205 .

**Body:** It is known that children exposed to animals (cats, dogs) may have increased respiratory symptoms in early life but such exposure may have a protective role against developing asthma as they grow older. As prevalence of asthma is different in different ethnic populations, we hypothesized that there may be differences in prevalence of having pets at home in different ethnic groups which may be one of the factors for differences in risk of asthma in different ethnic groups. Methods: After local IRB approval, 2 year data from Pediatric Asthma Center, established at Nationwide Children's Hospital in 2010 was analyzed. Families at their first visit were given a questionnaire which included information on ethnicity and presence of pet at home. Results: Out of 542 patients, 317 (58%) were males and 225 (41.4%) were females. Mean age in years was  $7 \pm 4$ , mean age at diagnosis was  $2.7 \pm 2.4$ , and mean duration of symptoms was  $4.5 \pm 3.7$  years. Self-reported ethnicity indicated that 358 (66%) were Caucasian, 116 (21.4%) were African Americans and 35 (6.4%) were Hispanic. A total of 318 (60%) patients had pet at home, and among them 247 (46.5%) had a dog, 112 (21%) had a cat, and 75 (22%) had both. Significantly more Caucasians had pets at home compared to African-Americans and Hispanics (70.4% vs. 39% vs 47% respectively,  $p < 0.001$ ). A similar pattern was noted for the presence of dogs (55% vs. 30% vs. 38%,  $p < 0.001$ ), the presence of cats (27% vs. 8% vs. 9%,  $p < 0.001$ ), and the presence of both dogs and cats (18% vs. 6% vs. 9%,  $p = 0.003$ ). Conclusions: There are significant differences among ethnic groups in regard to having pets at home. Such differences may be playing a role in variations in asthma prevalence in different ethnic groups.