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### Prevalence and Trends of Asthma in United States (US) Adults, 2005-2016: A National Health and Nutrition Examination Survey (NHANES) Study

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**Presenter Information**

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**Title:** Prevalence and Trends of Asthma in United States (US) Adults, 2005–2016: A National Health and Nutrition Examination Survey (NHANES) Study

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**Background/Objectives:** Asthma is a debilitating chronic airway disease for which there is no cure. As of 2017 it was estimated that approximately 19.2 million adults or 7.7% of the total US adult population were diagnosed with this condition. This study aims to estimate the prevalence of asthma among US adults, investigate potential risk factors, and identify health disparities.

**Methods:** This study included 32,798 participants who were  $\geq 20$  years old, informed by a doctor they had asthma and had the disease at the time of the survey. Weighted percent prevalence and trend analyses were estimated utilizing NHANES cross-sectional data from 2005 to 2016. A predictive model was developed to identify potential risk factors using multivariate survey logistic regression. Analyses were performed with SAS v9.4.

**Results:** The overall unadjusted prevalence of asthma was 8.3%. Statistically significant increases in the prevalence of asthma from 2005-2016 were found for: females (9.8% to 12.0%); those of age 20 – 39 years (7.4% to 9.7%) and  $\geq 60$  years (7.4% to 9.8%); Mexican Americans (3.7% to 4.6%); Non-Hispanic Whites (8.5% to 9.9%); those of middle socio-economic status (7.8% to 9.2%) and adults with a BMI  $< 25$  (6.3% to 8.3%).

**Conclusions:** From 2005-2016 the overall unadjusted prevalence of asthma increased significantly from 8.1% to 9.1%. The probability of having asthma was increased for those who were female, of low SES, obese, had COPD, had a close relative with asthma, and were depressed. Early detection, improving treatments, and increasing public health interventions can effectively decrease the prevalence of asthma.