Asthma is a non-communicable chronic disease that affects the airways in the lungs. It causes repeated episodes of wheezing, breathlessness, chest tightness, and nighttime or early-morning coughing. During an asthma attack patients may experience bronchospasm (a tightening of the muscles around the airways), inflammation of the lining of the airways, and/or increased mucus production that may clog airways. Asthma may be intermittent, persistent, allergic, non-allergic, pediatric, adult-onset, exercise-induced, occupational, or can exist alongside Chronic Obstructive Pulmonary Disease (COPD), called Asthma-COPD Overlap Syndrome (ACOS). As of 2020, asthma currently impacts an estimated 25.3 million Americans, resulting 12.6 deaths per 1,000,000.

Racial Disparities

In the United States, asthma disproportionately impacts Multiracial Non-Hispanic, Black, and American Indian/Alaska Native Americans. There are an estimated 735,992 Multiracial Non-Hispanic (representing 11.5% of the Multiracial Non-Hispanic population), 417,161 American Indian/Alaska Native (representing 10.8% of the American Indian/Alaska Native population), and 4,025,268 Black Americans (representing 10.8% of the Black population) living with an asthma diagnosis. Black children are significantly more likely to receive an asthma diagnosis, with an estimated 12.3% receiving that diagnosis. Among adults, Multiracial Non-Hispanic faced the highest risk of diagnosis, with an estimated 13.8% of Multiracial Non-Hispanic adults receiving an asthma diagnosis.

Black Americans are 2-3 times more likely to die of asthma than any other racial group.

Sex/Gender Disparities

Females are more likely to receive an asthma diagnosis in their lifetimes. Current estimates suggest that 15,652,277 Females across all ages have been diagnosed with asthma, representing 9.5% of the population, compared to just 6.1% of Males.

Income Disparities

Income levels are highly correlated with a prevalence of asthma diagnoses. An estimated 11% of persons earning less than 100% of the Federal Poverty Level (FPL) are living with asthma, compared to just 6.7% of people earning 450% of the FPL or higher. The prevalence of asthma increases as the earned percentage of the FPL decreases.

Regional Disparities

The prevalence of asthma diagnoses is not strongly correlated to region, with the exception of the New England region (including Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, and Vermont), where between 10.6% and 12.1% of the adult populations in those states have been diagnosed with asthma.

Black Americans are 2-3 times more likely to die of asthma than any other racial group.

Sex/Gender Disparities

Females are more likely to receive an asthma diagnosis in their lifetimes. Current estimates suggest that 15,652,277 Females across all ages have been diagnosed with asthma, representing 9.5% of the population, compared to just 6.1% of Males.

Income Disparities

Income levels are highly correlated with a prevalence of asthma diagnoses. An estimated 11% of persons earning less than 100% of the Federal Poverty Level (FPL) are living with asthma, compared to just 6.7% of people earning 450% of the FPL or higher. The prevalence of asthma increases as the earned percentage of the FPL decreases.

References

4. CDC. (2022, December 13). Most Recent Asthma State or Territory Data. https://www.cdc.gov/asthma/most_recent_data_states.htm