Asthma Risk Factors

Several studies have shown an association between asthma prevalence and risk factors like obesity and depression. For example, poor asthma outcomes have been found to be higher among obese individuals compared to those of normal weight (Kent, 2012; Krystofova, 2011) and among those with poor mental health (Zielinski, 2000). However, it is unclear which disease comes first, whether obesity and poor mental health cause or result in an asthma diagnosis. Additionally, studies have shown that among people with asthma, obesity and poor mental health can be a risk factor for poorer asthma outcomes like lower quality of life, poorer asthma control, and a history of asthma-related hospitalizations (Krystofova, 2011; Nauert, 2007, Sims, 2011).

Other risk factors for poor asthma outcomes include asthma triggers. An asthma attack can occur when someone with asthma is exposed to certain things in the environment that affect his or her asthma. Asthma triggers vary from person to person. Some common asthma triggers include tobacco smoke, dust mites, cockroach allergens, pets, mold, and wood smoke (CDC, 2011). People with asthma should seek to reduce exposure to these triggers and thus reduce the risk of an asthma attack.

Utah data were analyzed to assess exposure to smoking, indoor environmental factors, poor mental health, and obesity as risk factors for asthma.

Key Findings

- Among Utah adults with current asthma, 12.3% reported being a current smoker.
- Significantly higher percentages of Utah adults who were obese reported having current asthma (13.0%), compared to normal weight and overweight adults (7.6% and 7.8%, respectively).
- About two-thirds of children and adults in Utah with current asthma said they allowed pets in their bedroom (66.1% and 79.3%, respectively).
- Significantly higher percentages of Utah adults who reported having a depressive disorder reported having current asthma (16.1%), compared to those without a depressive disorder (7.0%).
Figure 13. Adults with Asthma Report Being Exposed to More Asthma Risk Factors Than Those Without Asthma

Percentage of Utah Adults Who are Current Smokers or Obese by Current Asthma Diagnosis, 2013-2015


Though exposure to tobacco smoke is a common asthma trigger, higher percentages of adults with current asthma reported being current smokers, compared to the Utah adult population without asthma (12.3% vs. 9.4%). Additionally, significantly higher percentages of Utah adults with current asthma reported being obese compared to adults without asthma (35.7% vs. 23.7%).

Figure 14. More Weight Means More Asthma

Current Asthma Prevalence by Weight Status, Utah Adults (Aged 18+), 2013-2015


Among Utah adults who were obese, significantly higher percentages reported having current asthma (13.0%), compared to normal and overweight adults (7.6% and 7.8%, respectively).
Utah adults who were exposed to any type of tobacco smoke had a significantly higher prevalence of current asthma (11.4% current smoker, 14.8% someone smoked in the home in the past 30 days, 15.2% current e-cigarette user), when compared to those who were not exposed (8.7%, 9.6%, and 9.5% respectively).

Among Utah adults who reported being told by a health care professional that they had a depressive disorder, there was a significantly higher percentage reporting current asthma (16.1%), compared to those who had never been told by a health care professional that they had a depressive disorder (7.0%).
Figure 17. Health Professionals Need to Talk to Their Patients About How to Reduce Exposure to Asthma Triggers

Adults and Children with Current Asthma Who Have Been Advised by a Health Professional to Make Changes to Their Environment, Utah Compared to Healthy People 2020 Target, 2013-2015


During 2013-2015, the percentage of Utah adults and children who reported that they had been advised to make changes to their home, school, or work environments to reduce exposure to asthma triggers were lower than the national Healthy People 2020 (28.8%, 22.6% vs. 54.5%).
Indoor environmental modifications are actions taken in an indoor environment to control asthma triggers. The most prevalent indoor modifications reported among Utah adults and children with current asthma included using an exhaust fan regularly in the bathroom or when cooking, and washing sheets and pillowcases in hot water. Other actions to control indoor triggers were implemented in one-third or fewer homes.
Using data from this report, the UAP and partners will be able to better understand populations of high need and target resources to them. Not only is this a cost effective approach to population asthma care but it ensures that the most vulnerable people with asthma receive treatment and care to help them control their asthma and reduce poor asthma outcomes. Additionally, this report will help the UAP and partners track asthma over time, identify trends, and set benchmarks for improvement.